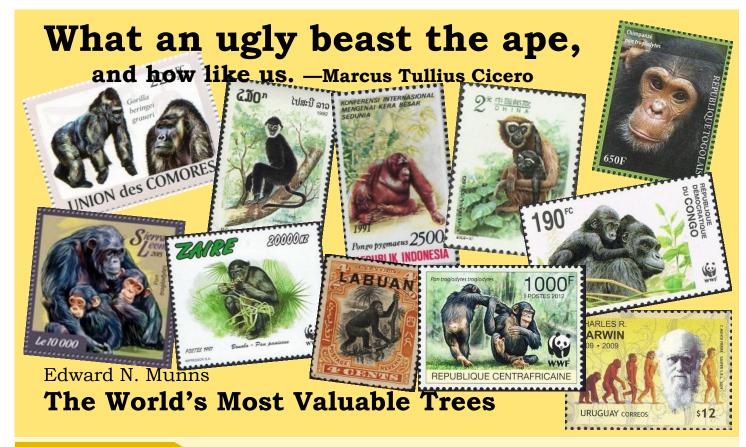
# BIOPHILATELY

# OFFICIAL JOURNAL OF THE BIOLOGY UNIT OF ATA

**MARCH 2017** 

**VOLUME 66, NUMBER 1** 















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The Biology Unit, founded in 1951, is a study unit of the American Topical Association dedicated to the international cooperative study of biological postage stamps and related material.

Electronic versions of back copies of Biophilately are available on our website or from the Librarian on request. Please contact the individual associate editors if you have queries about the content of their columns.

Send membership enquiries and change of address notices to the Secretary, Chris Dahle, (319) 364-4999, address at left. See the following page for dues rates.

The purpose of this journal is to provide members with informative articles dealing with biological topics and to publish listings covering the new zoological and botanical issues of the world, identified and classified to the best of our ability.

Please send letters, comments on the journal, articles, or new material to the Editor (data above). The Publisher will handle requests for issues from the current year. Contact the Librarian (address above) for copies of all other issues.

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PLEASE NOTE: Material for the next issue should be in the hands of the Editor before 15 May 2017.

#### FROM THE EDITOR'S DESK

Welcome to the first edition of another volume of *Biophilately*. This is our 66th year of publication. The Biology Unit is the second oldest of all the Study Units in the American Topical Association (ATA). The oldest is the Casey Jones Railroad Unit and they only have us beat by a couple months.

The pagination on the print version of the last edition of the journal was not aligned correctly due to a printing error. The list of editors should have been printed on the inside of the cover. But since it was not, this misaligned all the other pages. We are sorry for this error.

We are looking for a new Associate Editor for the **Ichthyology** column. Kris Lindstrom has retired and will be devoting his time to travel. If you collect this or a related topic, please contact me to discuss undertaking this position. Since you probably already keep a listing of the related stamp issues, I will make it as simple as possible for you to share it with the rest of our members.



As I have mentioned previously, we would like to add another recurring column devoted to **Microbiology**. Microbiology is one of the three primary divisions of the biological sciences along with Botany and Zoology. We have been seriously deficient when it comes to including it in our articles. The fact that its organisms are visible only under a microscope, is not an excuse for this.

Another column that we would like to re-institute is "Mammals Biographical." This is an awkward title, so we will probably rename it, but it is the Mammals equivalent of the "New Birds in the Philatelic Aviary" column. It would include a short description of the animal and a summary of its ecological and geographical place in the biological world. We could do the same sort of thing with any of the new listing areas such as Plants, etc., so if you are willing to provide a periodic column on these subjects, please let me know.

This edition contains a huge section on new issues for Birds on stamps. Glenn Mertz apparently has decided that you cannot avoid the current versions of what we used to call "Sand Dunes" productions, which are issues specifically produced for sale to collectors and serve limited, if any, other purpose such as actually paying for postal service. He has included several pages of topical issues that will very likely never receive official listings in catalogs.

We have added a new table to our Glossary of Terms that contains the abbreviations for the Family entries used in our Entomology column.

The ATA is planning its annual **National Topical Stamp Show** to be held in Milwaukee, Wisconsin on 23–25 June 2017 (see details on page 4). The Biology Unit will hold its **annual meeting** in conjunction with the show. The one-hour meeting is currently planned for Saturday at 10:00 AM. Usually we do not conduct any official business at these meetings. We hold them to provide information to the members about the Unit's activities and to socialize and receive feedback from the membership.

However, this year we may need to discuss filling some important vacant positions in the Unit Board of Directors and in the editorial roster for *Biophilately*. Please try to attend the show and come to the Unit meeting.

Jack R. Congrove

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Please see the Biology Unit website (*www.biophilately.org*) for membership applications. Several payment options are available. Send applications and payments payable to the Biology Unit of ATA to: Chris Dahle, 1401 Linmar Drive NE, Cedar Rapids, IA 52402

#### PRESIDENT'S MESSAGE

Greetings from Ontario and apologies for cutting my last message off so abruptly. It was a matter of too little space remaining to finish off comments about the show. During the banquet and award presentations, my "World of Insects" exhibit received another silver, but to my surprise was also awarded the American Association of Philatelic Exhibitors pin for "Best presentation in a level other than Gold"—still lots of work to be done but it was gratifying to find I was on the right track.

Last time Barbara and I were "in the west" was in 1985 in Reno, on the eastern side of the mountains [see *Biophilately*, Vol. 64(3)] so we decided to further investigate the eastern side on this trip and visit some National Parks that we had heard of.

We started on the Monday morning through the seemingly endless construction around Denver until we could pick up I-70 and head west climbing all the way until we went over Vail Pass at 10,666 feet. We then passed through the skiing areas with



blocks of apartments all boarded up waiting for another ski season. The Colorado River joined the highway just past Gypsum and we went through New Castle, Silt, Rifle, and Parachute (fascinating names) and on through Glenwood Canyon, which was amazing, to Grand Junction, where we stopped at the visitor centre.

We asked about the Colorado National Monument and were told it would take about 1½ hours to go around it, so we took the opportunity and were very glad that we did. Back to the highway, we crossed into Utah and went away from the Colorado and arrived in Green River, where we had planned to stay. The motel was right beside the Green River, which flows from north to south and later joins the Colorado.

In the morning we were back on I 70 across rolling, desert-like terrain until we dropped through a cut and were faced with spectacular sandstone ridges. We turned south on Hwy 24 heading across the San Rafael Desert to Hanksville (no relation), which was like an oasis in the desert. We stopped for coffee and chatted with the owner who told us they were short of water (3-4 inches of rain instead of the usual seven). We drove on through Capitol Reef National Park, which was wonderful and used up a lot of film before we stopped at Torrey for lunch.

Since we were heading for Panguitch on Hwy 89, we took Hwy 12 through the Dixie National Forest, which was heavily treed and very much "up and down." The town of Escalante is situated on the Grand Staircase Escalante National Monument and the road west ran alongside the Fremont River. We stopped for a break at an overlook for more picture-taking and I took one of a Long-Tailed Burrowing Wasp, which I hoped would come out.

Just before arriving at Panguitch (where we had booked a room), we went through Red Canyon, which is just north of Bryce Canyon and it was spectacular. Panguitch was a bit of a disappointment, as they had the road up, but the motel was okay and we were able to buy a couple of well-illustrated books, one on Capitol Reef and the other on Utah.

The weather on the following day was cool and cloudy, not the greatest for visiting Bryce Canyon, but it was still fantastic with all the pinnacles in reddish rock, sculpted by the wind. We walked a couple of trails; an easy one for Barbara and a more difficult one for me, in which I was surprised to see a two tall conifer neatly hemmed in by the red rock walls. At the southern end of the canyon there was a Bristlecone Pine 1,600 years old.

We left the canyon and drove north on a back road to Antimony with a branch of the Sevier River next to the road and stopped for some supplies. Took a look at the Otter Creek Reservoir, which had a campground and which brought back memories of our travels in the eastern U.S. with our children and a tent trailer. Picked up Hwy 89 and cut over to Cedar City. where we stayed the night. Picked up I-15 and traveled south, all downhill until we turned on to Hwy 17, which took us into Zion National Park, where we drove to Springdale and booked in to the motel. (to be continued.)

Until next time...

Alan J. Hanks

#### SECRETARY-TREASURER'S CORNER

#### **MEMBERSHIP DUES**

In the last issue, we sent notice that annual dues are payable. If you have sent in your dues already, thank you very much for your support and membership. If you have not yet made payment, or if you cannot recall, look on your **mailing label** to see the year for which you are paid up.

There is a renewal form available for download on the Membership page of the Biology Unit website (www.biophilately.org/membership.html). You can also fill out an on-line form at the website and make your payment using PayPal.

If you want to receive only an electronic copy of *Biophilately* via the website, the annual dues are only \$15. For delivery of the journal by surface mail, the annual dues are \$20 for US addresses and \$25 for international addresses.

#### **NEW MEMBERS**

Regrettably, we have no new members to report in this edition. The Biology topic is immensely popular. It is likely that someone in your local club is a collector of something related to zoology or botany. Sign them up. Membership applications are on the website (*www.biophilately.org*). Or you can contact the Secretary directly.

## NEWS OF NOTE

#### **TOPICAL STAMP MARKET**

Herrick Stamp Company is one of America's most famous stamp dealers. They offer a new issues service among other things. They publish a stamp market report that includes a market strength grade (1 to 10) for various stamp collecting areas. See the entire report at their website (http://www.herrickstamp.com/marketing\_commentary.php).

They state that the stamp market has been stronger for the past few months and they have added topical stamps as one of their survey categories. They believe that thematics are an important part of the stamp market and that **topical** stamps, especially **Bird stamps**, are gaining popularity. New issue stamps with intricate and informative design details are also very strong.

At left is an extract of their report that shows the ratings for the past three Herrick surveys. The chart reflects what their customers order and how market prices are moving.

The chart indicates the market for topical stamps is stronger than any other category except British Colonies, where it is tied.

This should not be surprising, because topical collecting is popular with both beginning and experienced collectors. This information should encourage us all to look for other people interested in topical stamps and ask them to join the ATA and our own study unit.

COUNTRY	Apr '15	Feb '16	Oct '16
Africa	5	4	4
Asia	5	5	5
British Colonies	5	6	6
China Area	5	4	4
Europe	3	4	3
France & Colonies	3	4	4
Middle East & India	3	3	5
South America	5	5	5
United States	5	4	4
Worldwide New Issues	5	5	5
Topical Stamps	7	6	6

#### **ARTICLES NEEDED**

Astute readers may have noticed that over the past several volumes we have published many articles from the same small set of authors. Of course, we greatly appreciate the contributions of these writers, but we would like to see **more variety and input from others**. We are sure all of you have something interesting to say and you are an expert in the area you collect.

(continued on page 4)

Therefore, we are challenging each of our members to send in at least **one short article for publication** in the upcoming editions of the journal. You could write about a particular stamp or set of stamps that you especially admire in your collection, perhaps how you came to acquire it, or something about the object it depicts.

You could write about a certain plant or animal, or group of plants or animals. We would very much like to see something similar to our "New Birds" column where you could focus on a specific stamp subject and describe its physical characteristics, habitat, and other ecological features, especially if it is a species new to philately.

The deadline for submissions is the 15th on the month preceding the edition date. The next deadline is 15 May for the June edition. Do not worry about formatting or grammar. That is what the editor is for. Also, do not concern yourself with placing any images "just so" in your article. Provide the images as separate files. The editor will have to reformat them to fit anyway. All we need are your ideas and verbiage.

#### NATIONAL TOPICAL STAMP SHOW

The American Topical Association, our parent organization, will hold its annual National Topical Stamp Show (NTSS) on **23–25 June 2017**, at the Crowne Plaza Milwaukee Airport Hotel in Milwaukee, Wisconsin. The show themes for each day are: Nature (Friday), Culture (Saturday), and Technology (Sunday).

The show will feature an all-thematic philatelic exhibition, several cachet makers, and a 30-dealer bourse. Dealers will provide not only topical material, but also a wide range of other stamps, covers, and philatelic items. There will be meetings, seminars, activities and special tour events for your pleasure. Free parking, youth activities, and Stamps in your Attic appraisals also are offered.

On Thursday before the show, ATA is offering a half-day tour of Cedarburg including the Wisconsin Museum of Quilts and Fiber Arts, Cedarburg Cultural Center, and Cedarburg Art Museum.

On Monday following the show, there is a full-day tour of New Glarus including the Swiss Historical Village and Museum and the Chalet of the Golden Fleece Museum. See the ATA website to register for the show and sign up for the tours (http://americantopicalassn.org/ntss/ntss2017.shtml).

The room rate at the show hotel is \$99 (plus ~15.1% tax) and is available by calling 414-764-5300 by 7 June 2017, or by selecting the direct link on the ATA website, which is easier. Give the group code **NTS**.

Your editor will be presenting a class at the show on **Making Your Own Album Pages by Computer**. This seminar will teach you how to use Microsoft Word to create your own tailored album and exhibit pages.

The Biology Unit will also hold a **meeting** at the show on Saturday at 10:00 AM.

#### **EXCHANGE REQUEST**

[We recently received this request from one of our writers.]

My name is Vladimir Kachan. I am 58 years old and for 40 years I have collected philatelic materials of the world with butterflies and moths. I am a serious thematic philatelist, but only an amateur in the area of Lepidoptera. During 25 years, I created a Butterfly philatelic exhibit, which is unique in the world for the Butterfly theme and has been awarded an FIP Large Vermeil medal twice in World Philatelic Exhibitions PORTUGAL-2010 and PHILANIPPON-2011.

I look for and study old philatelic materials of the world with butterflies and moths and write philatelic articles with my research. More than 50 of my articles about butterflies and moths in philately have been published in thematic philatelic journals of the world. I write articles with the aim of popularizing the subject of Lepidoptera on stamps, cancels, and postal stationery.

I am looking for friends/philatelists to exchange thematic and philatelic knowledge and trade philatelic materials with butterflies and moths. I have duplicates of very many philatelic materials of the world with butterflies and other insects including postal stationery, FDCs, special cancels, meter marks, and mint stamp sets.

I can help in creation or improvement of butterfly (insect) philatelic exhibits. Perhaps in your philatelic club some thematic philatelists interest in butterfly (insect) topic?

Yours sincerely, Vladimir Kachan, Kulibina 9-49, Minsk-52, BY-220052, Republic of Belarus

#### THE WORLD'S MOST VALUABLE TREES

#### Edward N. Munns, BU487

[Ed. Note: This is another in our series of reprints of articles from previous editions of the Unit journal. It was originally published in the April-May 1967 edition of Bio-Philately (Vol. 16, No. 5, pp. 202–203). This article appeared before we had the capability to include illustrations. So, I have tried to enhance it with appropriate images. I also updated the listing of stamps at the end.]

[Edward Norfolk Munns (1889–1972) was Head of the U.S. Forest Service's Division of Silvics. He was the author of several books and reports on forestry and forest management. He was also instrumental in proposing and getting approval for the John Muir commemorative stamp (Sc#1245).]

What are the most valuable trees in the world? This question was asked at a 4-H Club meeting. I gave my answer. As a forester, I mentioned timber trees of great utility: Pine, Oak, Cedar, Teak, Mahogany. What trees would you have given?



WHITE OAK
Quercus albs

USA 15 C

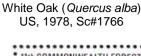


4-H Clubs US, 1951, Sc#1005

White Pine (*Pinus strobus*) US, 1978, Sc#1765



Cedar (*Cedrus libani*) Lebanon, 1963, Sc#405





Teak (*Tectona grandis*) Trinidad & Tobago, 1980, Sc#335



Mahogany (*Swietenia mahagoni*) Bermuda, 1973, Sc#301

The question and answer bothered me. So I asked others—foresters, engineers, teachers, architects, nurserymen. Their answers were much like mine. But when I reviewed my "Tree Album," I knew that all the answers were wrong.

So, later I confessed my error to the boys and presented a new and more thoughtful list. The new ones included, in order: Date, Coconut, Almond, Olive, Fig, Rubber, Cinchona, Citrus, and Mulberry. (I wanted a tenth, but couldn't find it.) All of these have been shown in stamp designs, some many times, others seldom and poorly. (See list at the end of the article.)

Whether these are actualy the world's most important trees can only be a conjecture. Probably it would be difficult to get complete agreement on them, or their tabular position. But certainly some of them have been known to man from antiquity, some have provided him food and shelter, and some have saved thousands from illness and death.

The Date and Coconut are perhaps without a peer. Millions of people have lived off of them for many centuries. What would the people of the arid regions have done without the Date, or the folks of the many islands done without the Coconut?



Date Palm (*Phoenix dactylifera*) Bahrain, 1995, Sc#443



Coconut Palm (Cocos nucifera) Cocos Islands, 1988, Sc#175

Then there are the "hard" lands, those that are low in fertility, shallow, dry, and often arid, lands that even today support a poor population and a poor growth of vegitation. Here are found the Almond, Olive, and Fig, the trees of poverty-agriculture that help maintain life because they produce where most other crops fail.



Almond (*Prunus dulcis*) Monaco, 1993, Sc#1852



Olive (Olea europaea) Monaco, 1988, Sc#1645



Fig (*Ficus carica*) Monaco, 1983, Sc#1376

And the Fig leaf is renowned because it first set the style of the miniskirt.



Adam and Eve by Rubens Paraguay, 1977, Sc#1710a

One might consider here such trees as the Breadfruit, the Banana (not a tree), or even the Oil Palms.



Breadfruit (*Artocarpus altilis*) Mayotte, 2005, Sc#213



Banana (*Musa* sp.) Cameroun, 1981, Sc#682





Oil Palm (*Elaeis guineensis*) Papua N.G., 2009, Sc#1414-15

Then the Oaks and Chestnut have furnished man with food for himself and his animals for centuries.



Sessile Oak (Quercus petraea) Ireland, 2006, Sc#1656



American Chestnut (*Castanea dentata*) Canada, 1995, Sc#1370

After going through the commercial realm, we pick up Rubber and Mulberry. Without the rubber tree, perhaps modern transportation and industry would have been impossible. Certainly great wealth to the world has come from the sap of the rubber tree.

The Mulberry is even older, having servied as the foundation of the silk industry on which thousands of people in the Far East have depended for many years. Today, silk is no longer the finest material for dresses or the most expensive cloth, but the Mulberry on which the worms fed deserves its place in the sun.

There might be added other trees whose products have been of major importance. The pines produce a resin that made shipping a possibility several hundred years ago.



White Mulberry (*Morus alba*) Laos, 2013, Sc#1867



Rubber (*Hevea brasiliensis*) Ceylon, 1935, Sc#264a

In the medicinal field, we would have to include the Orange and Lemon of the citrus family for they are the sources of vitamin C that once cured scurvy and made long voyages possible. And the world must give credit to the Cinchona tree for its bark saved countless millions from a miserable existance and death by malaria. Even today, Peruvian bark is still better than the chemical derivatives that have replaced it in many areas.

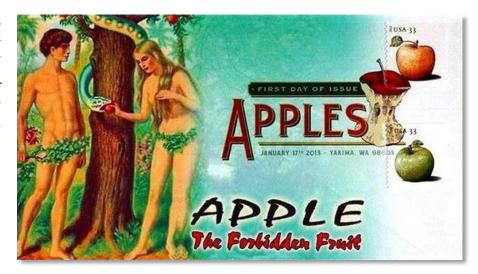


Orange (Citrus x sinensis) Monaco, 1991, Sc#1775



Cinchona (*Cinchona* sp.) Rwanda, 1970, Sc#367

Our list is completed with a question mark. Possibly it should end with the Apple, for it is credited with most of man's woes. Had Eve not given Adam a bite of the forbidden fruit, perhaps today we would all be nudists and still living in the Garden of Eden.



Perhaps one should include the trees with religious connotation: the Ailanthus of China, the Baobab of Africa, or the Bodhi Tree of Ceylon. But, what do you suggest?



Ailanthus leaves (*Ailanthus fordii*) Ailanthus Silkmoth (*Samia cynthia*) Korea (North), 1965, Sc#640



Baobab (*Adansonia digitata*) Botswana, 2008, Sc#858



Bodhi Tree (Ficus religiosa) Nepal, 2001, Sc#697

#### TREE CHECKLIST

[This is a partial listing of stamps depicting the tree types mentioned in this article.]

**Date Palm:** Algeria 80; Bahrain 153, 439–43; Bangladesh 53; Cape Verde 350; Egypt 369; Gabon 337; Iraq 335, 393–95; Israel 44; Kuwait 193; Liberia 1231; Libya 183–85, 234, 420–21, B12; Mauritania 227; Monaco B25; San Marino 968; Sudan 155; Tunisia 357, 753, 1180, UAE 245–46, 538, 540, 1055

Coconut Palm: Anguilla 30; Antigua 714, 2984; Barbados 1172; Brazil 1658, 2636D; Ceylon 270, 292, 313, 329; China 3475; Cocos Islands 155, 173–76; Congo P.R. 658; Cook Islands 1342; Dominica 180, 730; France 3444; French Congo 47–49; French West Africa 44; Gabon 560, 665, J38; Gilbert & Ellice 47, 67, 173; Ifni 141; India 745; Indonesia 499; Jamaica 119; Kenya 758; Kiribati 346, 426; Maldive Islands 555, 948, 1306, 2327; Marshall Islands 668m, 966m, 998, 1031a; Mayotte 242; Montserrat 1228, 1326a; Mozambique 1768; Mozambique Company 132–34, 189; Nauru 45, 62, 176; Netherlands Antilles 233; Netherlands Indies 253; Netherlands New Guinea 47; Nevis 1181b; New Caledonia C97; Niue 38, 841, 870; North Borneo 246; Oman 243; Pakistan 95; Palau 426j, 486f, 1172a; Penrhyn Island 28; Philippines 2252; St. Vincent 2191, 2676; Tonga 59; Trinidad 59; Seychelles-ZES 127; Sierra Leone 922; Solomon Islands 74, 1069D; Sri Lanka 558; Surinam 510; Tanzania 1329, 2283, 2359d, 2427; Togo 216–21; Tokelau 164c, 395; Tonga 1132; Tonga (Niuafo'ou) 257; Trinidad & Tobago 122; Vanuatu 439, 602–03; Vietnam (North) 106; Wallis & Futuna 461, 571, C31; Zanzibar 256

**Almond:** Algeria 609; Anguilla 247; Dominica 1344; Grenada-Grenadines 1347; Italy 360; Liberia 1231d; Libya 1507h; Monaco 1852; Netherlands 1142h; Palau 416; Romania 2155; Seychelles-ZES 130; Singapore 1433, 1438f; Spain 1879; Virgin Islands 340; Yugoslavia 1845

Olive: Croatia 450; Gambia 2413; Greece 2258; Israel 112, C9; Italy 560, 937; Jordan 1737–38; Liberia 1231; Libya 1507m, B17; Mexico 1042; Monaco 1645; Montenegro 343; Morocco 238; Palestinian Authority 165; Spain 3104; Syria 580; Tunisia 165–84, 361, 1181; Turkey 728–36; Yougslavia 1695

**Fig:** Australia 2416, 2421; Barbados 429; Bermuda 669; Burkina Faso 469; Dominica 733; Israel 66, 148; Jordan 1899; Lebanon 395; Liberia 1231c; Libya 1507o; Malta 1279e; Monaco 1376; Namibia 974; Peru 382, 416; Salvador 981; South Africa (Transkei) 227–28; South Africa (Venda) 86; Swaziland 657, 766; Syria 686; Turkey 791; Yemen 234, J24; Zambia 157

**Rubber:** Bolivia 775; Brazil 1934; Cameroun 177–97, C105; Ceylon 264, 323; Colombia 665; Congo P.R. 588–89; Gabon 705; Ghana 333; India 849; Indonesia 500; Ivory Coast 1157; Liberia 310, 753, 2731; Malaya 96, N35; Malaysia 53, 135; Middle Congo J23–J33; Mozambique 159; Mozambique Company 112, 159; Papua New Guinea 132; Singapore 1349; Sri Lanka 1403; Thailand 566

**Cinchona:** UN-Geneva 187; Colombia 923, 925; Congo D.R. 444, 446, 448; Cuba 759; Ecuador 1320; Poland 1088; Rio Muni 10, 30: Rwanda 304, 367

Citrus: Bermuda 676; British Honduras 200; China 3474; Colombia 589; Dominica 126; Dominican Republic 1289d; Fiji 1244; Gabon J39–J40, J44; Gambia 2785d; Germany B1027; Iraq 231; Israel 120, 1767b; Jamaica 122; Japan 3425e, Z536; Jordan 2137–41; Kenya 755; Libya 1507j; Mayotte 254; Micronesia 248; Monaco 1775; Mozambique 1768; Netherlands Antilles 498; New Caledonia 1044; New Zealand 762; Pakistan 89; Russia 1587; South Africa (Ciskei) 125; Syria 775–79; Thailand 1538; Trinidad & Tobago 150; Tunisia 1179; Vietnam (North) 2384; US Q12

**Mulberry:** Afghanistan 640–41; Bermuda 674; Italy 640; Laos 1867; Libya 1507c; Maldive Islands 549; Malta 1279d; Palau 421b; St. Vincent 1674h

#### **SWISS BABY ANIMALS**

On 2 March 2017, Swiss Post will issue a set of four stamps depicting cute baby animals. Each of the species depicted is highly endangered in Switzerland. A set of four picture postcards with each design will also be released.

Eurasian Otters (*Lutra lutra*) used to live on the banks of practically every stretch of water in Switzerland. They became extinct in Switzerland in the middle of the 20th century as a result of over-hunting. To ensure a natural return of the species from border areas, or a successful repopulation, the country must restore its water habitats, especially in the central plateau.

The otters are widely distributed across the rest of Europe and parts of Asia and Africa.

The **Eurasian Lynx** (*Lynx lynx*) was reintroduced to Switzerland in 1971. The animals are able to survive in heavily cultivated terrain because they are extremely discreet. A stable population has established itself mainly in the northwest Alps and the Jura.

The lynx is a medium size cat and the largest lynx species. It is widely distributed across eastern Europe and northern and central Asia.

85
SMON HOFER 2017

150
SMON HOFER 2017

SMON HOFER 2017

Because their natural prey was being hunted by man, **Eurasian Wolves** (*Canis lupus lupus*) had no choice but to feed on farm animals. This led to the wolves themselves being hunted down and eventually disappearing from Switzerland at the end of the 19th century. Since 1995, wolves have been regularly migrating back into the country from Italy and France. Since 2012, there have been cub births every year in the Calanda mountain range in Graubünden.

The Eurasian Wolf is the largest of the Old World grey wolves weighing up to 175 pounds (80 kg). It was widespread throughout Eurasia prior to the Middle Ages, but was systematically exterminated since then. Populations have recovered since World War II and is now widespread throughout northern and central Asia.

About one hundred years after becoming extinct in Switzerland, almost every summer since 2005, **Eurasian Brown Bears** (*Ursus arctos arctos*) have roamed through Switzerland's Alpine valleys. The animals come from the Austrian-Italian-Slovenian border region. Bears live inconspicuously and frequently their presence is not even noticed. Hunting and loss of habitat almost resulted in the complete disappearance of these once widespread animals.

The brown bears are making a comeback in northern and central Europe. But the largest population is found in Russia and parts of central Asia.

The stamps were designed by Simon Hofer from Bern, Switzerland. He consciously factored the sympathy effect into his portrayals of the baby animals. The animal is in the foreground and the unicolored backgrounds heighten the eye-catching effect.

# ALEXANDER von HUMBOLDT: THE FIRST ENVIRONMENTALIST

#### Dr. Lyman R. Caswell, Washington

[Ed. Note: This is the third installment of a four-part article on the life of Alexander von Humboldt. See Vol. 65 (3) and Vol. 65 (4) for Parts 1 and 2 of this article. Dr. Caswell is a retired chemistry professor who has an award winning exhibit on von Humboldt. He is a Director in the Society for Hungarian Philately and also a founding director of the Seattle Philatelic Exhibition.]

#### **Ecuador**

On 31 December 1801, the travelers entered what is now Ecuador at Ibarra, a town on the border with Colombia. There they met Colombian physicist Francisco José de Caldas, the discoverer of the relationship between altitude and boiling point. (Fig. 30). Caldas traveled with them to the city of Quito, where the travelers were received as guests by Juan Pío Montúfar, the Marqués de Selva Alegre (Fig. 31).



Fig. 30. de Caldas on International Geophysical Year First Day Cover Colombia, 1958, Sc#680/C309–10

The son of the Marqués, Carlos Montúfar (Fig. 32), accompanied Humboldt for the remainder of his American expeditions, and went back to Europe with him.

Caldas applied to join Humboldt's expedition, but Humboldt rejected the request because Caldas did not have the resources to pay his own way. Caldas took offense about his rejection, and complained bitterly about it in a letter to the botanist Mutis.





Fig. 31. Juan Pío Montúfar Ecuador, 1909, Sc#185



Fig. 32. Carlos Montúfar Ecuador, 1909, Sc#186

Fig. 33. Expedition Maps Ecuador, 1986, Sc#1141

In the archives at Quito, Humboldt studied the maps and other records left by the La Condamine geodesic expedition of 1736 to measure an arc of the Equator, and the maps of the explorer Pedro Vicente Maldonado in 1750. Figure 33 reproduces maps left by both expeditions.

On 8 June 1802, Humboldt, Bonpland, and Montúfar left Quito, and traveled south on the old Inca road. Near the city of Loja they harvested quinine bark, in order to be prepared to treat any further attacks of malaria.

On 23 June, they attempted the ascent of Mount Chimborazo (Fig. 34), the world's highest volcano and the point on the Earth's surface that is farthest from the Earth's center. They achieved an elevation of 19,280 feet (5,877 m), 1,269 feet (386 m) below the summit and the highest elevation reached by a European up to that time.

They were driven back by cold and altitude sickness. The cold and altitude



Fig. 34. Mount Chimborazo Ecuador, 2000, Sc#513



Fig. 35. Tungurahua Eruption Ecuador, 2006, Sc#1831

did not stop them from observing the plants that grew on the mountain, and collecting specimens. Late in July, the travelers ascended the Ecuadorian volcanoes Tungurahua (Fig. 35) and Cotopaxi.

Continuing down the Andes, Humboldt, Bonpland, Montúfar, and Caldas made three attempts to climb the volcano Pichincha, finally reaching the edge of the crater on 28 June. The local Indians attributed an earthquake on the following day to the "disturbance of the mountain's dust" by the explorers.

Figure 36 reproduces Humboldt's painting of "Travelers in the Andes," an illustration from Humboldt's book, *Vues des cordilléres et monuments des peuples indigènes de l'Amerique* ("Views of the Cordilleras and Monuments of the Indigenous Peoples of America"), in which he described his Andean journey. The mountain in the background is the Cayambe Volcano. The bird on the stamp of Liechtenstein, a country that Humboldt never visited, is an Andean Condor (*Vultur gryphus*), which is described in the book.



Fig. 37. Ingapirca Ruins Ecuador, 1956, Sc#C295



Fig. 36. "Travelers in the Andes" with stamp honoring Humboldt Liechtenstein, 1994, Sc#1022

Along the Inca road, on the way to Perú they inspected the ruins of the palace of the Inca Tupac Yupanqui and the Inca Fortress of Ingapirca (Fig. 37).

They spent ten days in the old city of Cuenca, where a bullfight was held in their honor. Near the city of Loja, they harvested cinchona bark in order to be prepared to treat any further attacks of malaria.

#### Perú

On 3 August 1802, the travelers entered the Viceroyalty of New Castille (now Perú). They traveled up the Marañón River and into the mountains to Cajamarca, the city where the conquistador Pizarro captured the Inca Atahualpa.

From Cajamarca, the travelers went to the coast. Along the way, they inspected the ruins of Chan-Chan (Fig. 38), the capital city of the pre-Inca Chimu kingdom.

On 25 September, they came to the city of Trujillo on the Peruvian coast. There Humboldt measured the temperature of the ocean and discovered the cold, nutrient-rich Antarctic current, now known as the "Humboldt Current."

He observed the harvesting of seabird guano and its use as fertilizer. His published description of the use of guano created a demand for it later in Europe. The Figures 39 and 40 show the Peruvian cormorant (*Phalacrocorax bougainvillii*), the source of guano, and its principal food, the Peruvian anchovy (*Engraulis ringens*).

Humboldt also recorded observations of the species of penguin, now known as "Humboldt's penguin," (*Spheniscus humboldtii*) (Fig. 41).

The travelers arrived at Lima on 23 October. Unlike his treatment by authorities in other parts of Spanish America, Humboldt's reception by the Viceroy was cold and unfriendly, making him feel unwelcome. No explanation has been offered for this different behavior. A possible explanation may lie in the extensive corruption in the government of the Viceroyalty.

The Viceroy may have suspected that Humboldt had been sent as a spy to report on conditions in the Viceroyalty to the Spanish government. Some thirty years earlier such a report on these conditions had been prepared by Antonio de Ulloa, the director of the mercury mine of Huancavelica in Perú. The report had been suppressed.

Humboldt and his companions, however, received a cordial welcome from the physician Hipólito Unanue (Fig. 42), "the father of Peruvian medicine," and not a member of the Viceroyal government. Unanue was their host during their stay in Lima. Unanue had an extensive library and collection of herbarium specimens, which he allowed Humboldt to examine.



Fig. 38. Chan-Chan Ruins & Bas-relief Peru, 1970, Sc#C294 & Peru, 1986, Sc#866





Fig. 39. *Phalacrocorax bougainvillii* Peru, 1937, Sc#357

Fig. 40. Engraulis ringens Peru, 1970, Sc#522



Fig. 41. *Spheniscus humboldtii* Peru, 1985, Sc#853



Fig. 42. Hipólito Unanue Peru, 1971, Sc#C318

In Lima, Humboldt met Czech botanist and explorer Tadeáš Haenke. The latter influenced Humboldt to publish his work on the influence of climate on plants, *Geographie der Pflanzen in den Tropen-Ländern: ein Naturgemälde der Anden* ("Geography of Plants in Tropic Lands: a Nature Painting of the Andes"). Figure 43.shows the frontispiece of this book. The white mountain is probably La Silla, near Caracas. The illustration of *Rhexia cardinalis* on the stamp reproduces an illustration from the book.

On 19 September of the following year, Humboldt, Bonpland, and Montúfar came to Callao, the port of Lima. Humboldt observed the transit of Mercury across the face of the sun and made further observations on the cold ocean current and the use of guano as a fertilizer.

A tête-bêche pair of stamps (Fig. 44) commemorate the bicentenary of Humboldt's visit to Perú. The ship below his portrait is the Peruvian Antarctic research vessel *Humboldt*.

Almost three months later, on 5 December 1803, the travelers sailed from Callao to Guayaquil, in Ecuador, aboard the frigate La Castora. Along the way Humboldt made further measurements of water temperature.

On 9 January 1803, they disembarked in Guayaquil. They remained in Guayaquil a month, seeking passage to the Galápagos Islands, but found none.

It is interesting to speculate what Humboldt might have done, if he had visited the Galápagos thirty years before Darwin, made the same observations as Darwin (Fig. 45), and come to conclusions similar to Darwin's.

We know that Humboldt was open to the idea of evolution. He wrote that the way our arms swing when we walk, the right arm swinging forward when the left foot steps and the left arm swinging forward when the right foot steps, is an inheritance from the walking gait of a quadrupedal ancestor.

It remained for Darwin to find the mechanism of evolution in natural selection, and for modern paleoanthropologists to find the fossilized bones of our quadrupedal ancestors.

Humboldt, Bonpland, and Montúfar, sailed on 15 February 1803, from Guayaquil aboard the frigate *Orúe*, headed for México. They disembarked at Acapulco in the Viceroyalty of New Spain (now Mexico) on 23 March.

[to be continued in the next edition]



Fig. 43. "Geography of Plants" illustration with stamp honoring Humboldt Liechtenstein, 1994, Sc#1023



Fig. 44. Bicentennial of Humboldt's Visit Peru, 2002, Sc#1349a



Fig. 45. Darwin Ecuador, 1936, Sc#343

## FROGS AND TOADS FROM CHILDREN'S STORIES

#### Dr. Vic Eichler, BU1850

Many stories with a focus for children in the world's literature include a frog or toad as a central character. Numerous countries have honored these amphibian characters by depicting them on postage stamps.

Perhaps the most popular subject is the frog protagonist in the story by the Brothers Grimm. According to the story, the frog retrieved the golden ball that a princess had lost in a pond, and as a reward the young lady was obligated to fulfill her promise to the frog. The story has several versions, but in the end the frog is freed from a spell and his true identity is revealed to be a handsome prince.

Among the numerous versions of stamps that portray this story are the following:

In 1966, West Germany issued a set of four semi-postal stamps that depicted scenes from









The Princess and the Frog, Germany-Berlin, 1966, Sc#9NB41-44

The Princess and the Frog fairy tale (Sc#418–21). They used the same designs on stamps from Berlin.



Austria, 1981, Sc#1181



Ajman, 1971, Mi#1034

No doubt that the frog with greatest public appeal for children—and adults as well—is Kermit the frog who first appeared on the Children's Television Network program *Sesame Street*. Kermit went on to star in television specials, movies, and books, and was even selected as the Grand Marshal of the Pasadena, California, Rose Bowl Parade



Serbia, 2016, Sc#717a



USA, 2005, Sc#3944a

The popular children's book, *The Wind In The Willows*, by Kenneth Grahame has brought fame to Mr. Toad, one of four animal friends who share many misadventures. Published in 1908, it has had many stage and television adaptations, and in 1985, a Broadway musical version was nominated for a Tony award.

in 1996.



Great Britain, 1993, Sc#1482



Great Britain, 1979, Sc#868

*The Tale of Mr. Jeremy Fisher*, written and illustrated by Beatrix Potter, tells of adventures of a frog named Jeremy Fisher. It followed Ms. Potter's publication of *The Tale of Peter Rabbit* and has retained its popularity since being published in 1906.





Great Britain, 2006, Sc#2334

Isle of Man, 2006, Sc#1171d (at right)

Rafael Pombo (1833–1912) was a journalist and translator who was given the honor of being named Colombia's most outstanding poet. Pombo created Rin Rin, a tadpole who fails to listen to his elders, much like a young person might. It has been written that Rin Rin is one of the most universally known characters from children's stories known throughout the country of Colombia.



Colombia, 1980, Sc#C693

Sandor Weores (1913–1989) was a Hungarian author and perhaps the country's greatest poet. In honor of his creative writing, Hungary published this miniature sheet of four stamps, the third of which illustrates a frog from one of his creations.



Hungary, 2013, Sc#4288c



2813

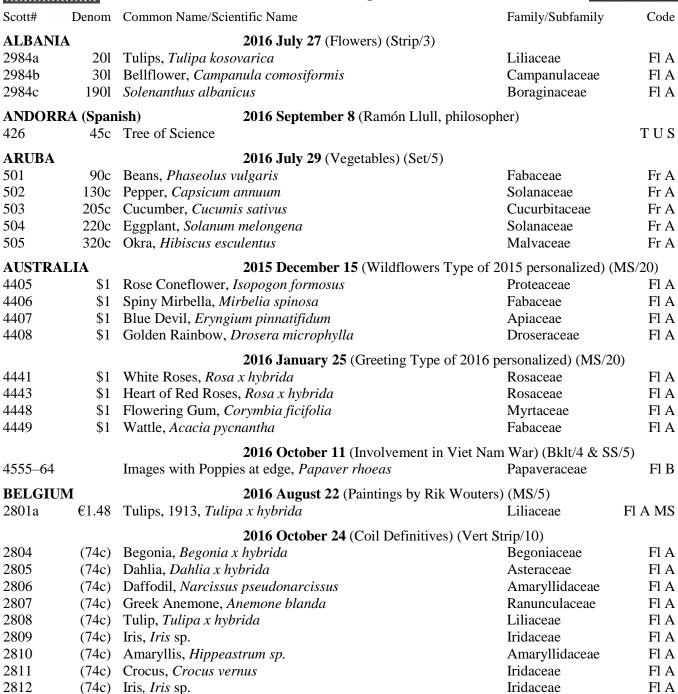
(74c) Hyacinth, Hyacinthus orientalis

## **BOTANY**

#### **Editor**

#### Christopher E. Dahle, BU1269

#### **New Listings**



Asparagaceae

Fl A

BERMU	<b>DA</b>	<b>2016 August 8</b> (Flowers Type of 2014	(Set/6) [see Vol. 64(1)]	p.18]
1115	20c	• • • • • • • • • • • • • • • • • • • •	Solanaceae	Fl A
1116	60c	Queen's Wreath or Sandpaper Vine, Petrea volubilis	Verbenaceae	Fl A
1117	75c	Pink Shower, Cassia javanica	Fabaceae	Fl A
1118	90c	Crepe Myrtle or Pride of India, Lagerstroemia indica	Lythraceae	Fl A
1119	\$1.95		Caryophyllaceae	Fl A
1120	\$3	Beach Morning Glory, <i>Ipomoea pes-caprae</i>	Convolvulaceae	Fl A
BOSNIA	& HERZ	ZEGOVINA (Serb) 2016 September 16 (Fruit Type of 201	6) [see Vol. 65 (4) p.270	)]
549		Cornelian Cherry, Cornus mas	Cornaceae	Fr A
BRAZII		2015 October 16 (Pepper Varieties) (B	Block/4)	
3315a	1.95r	Malagueta, Capsicum frutescens	Solanaceae	Fr A
3315b	1.95r	Dedo-de-moça, Capsicum frutescens	Solanaceae	Fr A
3315c	1.95r	Bode, Capsicum frutescens	Solanaceae	Fl Fr A
3315d		Biquinho, Capsicum frutescens	Solanaceae	Fr A
		<b>2016 January 12</b> (400th anniv. Belém)	) (MS/8)	
3322	Margin	Bkgrd: Tree-lined street		TAUZ
3322e	(1.50r)	<del>-</del>	Arecaceae	Fr A
CHINA	(Taiwan)	<b>2016 August 17</b> (Fruit Type of 2016) (	Set/4) [see Vol 65(4) p.2	71]
4313	\$7	Tomatoes, Lycopersicon esculentum	Solanaceae	Fr A
4314	\$17	Guavas Psidium guajava	Myrtaceae	Fr A
4315	\$25	Persimmons, <i>Diospyros kaki</i>	Ebenaceae	Fr A
4316	\$34	Pineapple, Ananas comosus	Bromeliaceae	Fr A
CHINA	(People's	<b>Republic</b> ) <b>2016 May 5</b> (Solar Terms) (Block/6)		
4357	•	Illustrations in shape of a fan		
4357c	\$1.20	"Grain in Beard," Rice paddy, Oryza sativa	Poaceae	Fr B
		<b>2016 May 8</b> (Scientists) (Set/4)		
4359	\$1.20	Jin Shanbao, agronomist in grain field		Fr B U
<b>CUBA</b>		2015 May 26 (National Flowers of C.	& S. American countries	) (Set/8)
5685	5c	Dahlia, <i>Dahlia x hybrida</i>	Asteraceae	Fl A
5686	15c	Golden Trumpet, Handroanthus chrysotrichus	Bignoniaceae	Fl A
5687	20c	Mayflower Orchid, Cattleya mossiae	Orchidaceae	Fl A
5688	30c	Ceibo, Erythrina crista-galli	Fabaceae	Fl A
5689	40c	Virgin Orchid, Rhyncholaelia digbyana	Orchidaceae	Fl A
5690	65c	Rose, Rosa x hybrida	Rosaceae	Fl A
5691	75c	Copihue or Chilean Bellflower, Lapageria rosea	Philesiaceae	Fl A
5692	90c	White Ginger, Hedychium coronarium	Zingiberaceae	Fl A
		2016 May 26 (National Flowers of N.	& S. American countries	) (Set/8)
5813	5c	Maga, Thespesia grandiflora	Malvaceae	Fl A
5814	15c	Bougainvillea, Bougainvillea spectabilis	Nyctaginaceae	Fl A
5815	20c	Romerillo, Argyranthemum frutescens	Asteraceae	Fl A
5816	30c	Plumeria, Plumeria alba	Apocynaceae	Fl A
5817	40c	Soufriere Tree, Spachea perforata	Malpighiaceae	Fl A
5818	65c	Poinciana, Delonix regia	Fabaceae	Fl A
5819	75c		A	T71 A
	150	Dagger's Log, Agave karatto	Asparagaceae	Fl A

<b>DJIBOUTI</b> 2016 March 15 (Paintings by van Gogh) (MS/4)				
911b		"Vase with Twelve Sunflowers," Helianthus animus	Asteraceae	Fl A
		<b>2016 May 5</b> (Orchids) (MS/4 & SS/1)		
953a	280fr	Caucaea sanguinolenta (=mimetica)	Orchidaceae	Fl A MS
953b	280fr	Diuris magnifica	Orchidaceae	Fl A MS
953c	280fr	Thelymitra pulcherrima	Orchidaceae	Fl A MS
953d	280fr	Thelymitra campanulata	Orchidaceae	Fl A MS
973	SS 960fr	Cattleya schroederae	Orchidaceae	Fl A SS
		2016 July 28 (Paintings by Morissot) (MS	/4)	
987a	260fr	"The Garden at Bougival"		Fl B U MS
987d	260fr	"Dahlias," Dahlia x hybrida	Asteraceae	Fl A MS
		2016 July 28 (Paintings by Cezanne) (MSA	<b>(4)</b>	
988c	260fr	"Still Life with Apples and Oranges," Malus domestica	Rosaceae	Fr B MS
		Oranges, Citrus sinensis	Rutaceae	Fr B MS
		<b>2016 July 28</b> (Intl. Year of Pulses) (MS/4	& SS/1)	
995a	260fr	Woman, child & legumes	Fabaceae	Fr B MS Z
995b	260fr	Hands holding seedling	Fabaceae	V B MS Z
995c	260fr	Farm machinery, sprout	Fabaceae	V B MS Z
995d	260fr	Poicephalus senegalus	Fabaceae	Fr B MS Z
1014	SS 960fr	Hands holding legume	Fabaceae	Fr B SS Z
FALKI	LAND ISLA	ANDS 2016 November 21 (Endemic Plants) (Set.	6 & MS/6)	
1173	31p	Falkland Rock Cress, Phlebolobium maclovianum	Brassicaceae	Fl A
1174	31p	Lady's Slipper, Calceolaria fothergillii	Calceolariaceae	Fl A
1175	76p	False Plantain, Nastanthus falklandicus	Calyceraceae	Fl A
1176	76p	Silvery Buttercup, Hamadryas argentea	Ranunculaceae	Fl A
1177	£1.01	Snakeplant, Nassauvia serpens	Asteraceae	Fl A
1178	£1.01	Falkland Nassauvia, Nassauvia falklandica	Asteraceae	Fl A
1179a	66p	Falkland Rock Cress, Phlebolobium maclovianum	Brassicaceae	Fl A SS
1179b	66p	Lady's Slipper, Calceolaria fothergillii	Calceolariaceae	Fl A SS
1179c	66p	False Plantain, Nastanthus falklandicus	Calyceraceae	Fl A SS
1179d	66p	Silvery Buttercup, Hamadryas argentea	Ranunculaceae	Fl A SS
1179e	66p	Snakeplant, Nassauvia serpens	Asteraceae	Fl A SS
1179f	66p	Falkland Nassauvia, Nassauvia falklandica	Asteraceae	Fl A SS
FRANC	C <b>E</b>	2016 September 3 (Flowers in Lavish Abu	undance) (Bklt/12)	
5066	(80c)	Oiseau de paradis or Bird-of-Paradise, Strelitzia reginae	Strelitziaceae	Fl A
5067	(80c)	Coquelicot or Poppy, Papaver rhoeas	Papaveraceae	Fl A
5068	(80c)	Muguet or Lily-of-the Valley, Convallaria majalis	Liliaceae	Fl A
5069	(80c)	Balisier or Heliconia, Heliconia sp.	Heliconiaceae	Fl A
5070	(80c)	Lys rouge or Red Lily, <i>Lilium x hybridum</i>	Liliaceae	Fl A
5071	(80c)	Iris, <i>Iris</i> sp.	Iridaceae	Fl A
5072	(80c)	Rose, <i>Rosa x hybrida</i>	Rosaceae	Fl A
5073	(80c)	Tornesol or Sunflower, Helianthus annuus	Asteraceae	Fl A
5074	(80c)	Jonquille or Daffodil, Narcissus pseudonarcissus	Amaryllidaceae	Fl A
5075	(80c)	Marguerite or Daisy, Argyranthemum frutescens	Asteraceae	Fl A
5076	(80c)	Belle-de-nuit or Four-o'clock, Mirabilis jalapa	Nyctaginaceae	Fl A
5077	(80c)	Passiflora or Passion Flower, <i>Passiflora sp.</i>	Passifloraceae	Fl A
5077a		Bklt/12 (Sc#5066–77) (s/a)		

FRENCH 1174		NESIA 'āvaro, <i>Premna ser</i>	2016 August 12 (Medicinal Plants)	Lamiaceae	Fl Fr V A
		,	<b>2016 October 21</b> (PhilaTaipei 2016 Exhibi		<sup>′</sup> 1)
1175 1175a	300fr	Woman and Plum I SS/1 (Sc#1175)	blossoms, Prunus mume	Rosaceae	Fl B
GERMA	NY		2016 February 1 (Microscopic Views Typ	e 2015) [see Vol. 6	5(2) p.92]
2877	70c	Diatom	A	D	VAU
2878 2878a	70c	Agrimony flower, A Horiz coil pair (Sc#		Rosaceae	Fl A
2886	70c	Chocolate Cosmos	<b>2015 December 3</b> (Flowers Type of 2005) , <i>Cosmos atrosanguineus</i>	Asteraceae	Fl A
GIBRAL	TAR		<b>2016 March 30</b> (Europa) (Set/2)		
1552	\$1.50	U/I tree			TAU
1553–57		Poppies and soldier	<b>2016 May 16</b> (100th anniv. Battle of the Sors, <i>Papaver rhoeas</i>	omme) (Set/5) Papaveraceae	Fl B
			2016 July 25 (200th anniv. Alameda Garde	ens) (Set/5)	
1559–63		U/I vegetation	• \	, , ,	V B U
GREAT I		N ( <b>England</b> ) Oak, <i>Quercus robu</i>	<b>2016 March 22</b> (Type of 2003) (see <i>Plants</i>	on Stamps Vol. V, Fagaceae	p.67) T A
GREAT I	BRITAI	N (Scotland)	<b>2016 March 22</b> (Type of 2003) (see <i>Plants</i>	on Stamps Vol. V,	p.68)
46	£1.05	Thistle, Onopordur	n acanthium	Asteraceae	Fl A
GREAT I 46		N ( <b>Wales &amp; Monm</b> o Daffodil, <i>Narcissus</i>	<b>outhshire)</b> 2016 March 22 (Type of 2003) (s pseudonarcissus	(Plants on Stamps \ Amaryllidaceae	Vol. V, p.68) Fl A
ICELAN	D		2016 September 16 (Wild Icelandic Veget	ation) (MS/10)	
1416	(180k)	Moss Campion, Sil		Caryophyllaceae	Fl A
1417	(275k)	Sea Campion, Siler	ne uniflora	Caryophyllaceae	Fl A
IRAQ	250.1	X	2016 July 13 (Flower Arrangements) (Set/	5)	
1999 2000	500d	Various flowers Various flowers			Fl A U Fl A U
2001	750d				FlAU
2002					Fl A U
2003	1500d	Various flowers			Fl A U
LATVIA			<b>2016 July 12</b> (Flowers Type of 2014) (insc	ribed "2016")	
868b	4c	Hepatica, Hepatica	nobilis	Ranunculaceae	Fl A
			2016 March 4		
930	50c	Water Lily, Nymph	aea caerulea	Nymphaeaceae	Fl A
MALAYS	SIA		2016 March 7 (Scented Flowers) (3ea Pair	rs & SS/1)	
1593a-b	70c	Bread Flowers, Val		Apocynaceae	Fl A
1594a-b	80c		raca declinata (=cauliflora)	Fabaceae	Fl A
1595a–b 1596	80c \$5	Cannonball Flower Cape Jasmine, <i>Gar</i>	r, Couroupita guianensis denia iasminoides	Lecythidaceae Rubiaceae	Fl A Fl A SS
		-	-		11/100
MALAYS 196D		ore) Rice, Oryza sativa	2002 (Agriculture & Arms Type of 1986) (	denom in "Sen") Poaceae	Fr A
1700	Joseff	ido, or yzu sunvu		1 ouccuc	1111

MALAYSIA	(Joh	ore) (continued) 2016 February 25 (Flower & Arms definit	ives) (Set/6 & SS/6)	
207		Lotus, Nelumbium nelumbo	Nelumbonaceae	Fl A
208	20c	Hydrangea, Hydrangea macrophylla	Hydrangeaceae	Fl A
209	30c	Amaryllis, Hippeastrum reticulatum	Amaryllidaceae	Fl A
210	40c	Bougainvillea, Bougainvillea spectabilis	Nyctaginaceae	Fl A
211	50c	Morning Glory, <i>Ipomoea indica</i>	Convolvulaceae	Fl A
212	60c	Chinese Hibiscus, Hibiscus rosa-sinensis	Malvaceae	Fl A
212a		SS/6 (Sc#207–12)		
MALAYSIA	•	,		
136c	20c	Oil Palm, Elaeis guineensis	Arecaceae	Fr A
MALAYSIA	(Kela	antan) 1986? (Agriculture & Arms Type of 1986 v	v/ Sultan Ismael Petra)	
121b	30c	Rice, Oryza sativa	Poaceae	Fr A
MALAYSIA	(Neg	ri Sembiblan) 1986? (Agriculture & Arms Type of Johore	1986)	
104b	20c	Oil Palm, Elaeis guineensis	Arecaceae	Fr A
MALAYSIA	(Pah	ang) 1986? (Agriculture & Arms Type of 1986 v	v/ Sultan Haji Ahmad Sl	hah)
113a	5c	Cacao, Theobroma cacao	Malvaceae	Fr A
117b	20c	Oil Palm, Elaeis guineensis	Arecaceae	Fr A
MALAYSIA	(Per	ak) 2016 March 21 (Flower & Arms definitive	s) (SS/6)	
180	`	Lotus, Nelumbium nelumbo	Nelumbonaceae	Fl A
181		Hydrangea, <i>Hydrangea macrophylla</i>	Hydrangeaceae	Fl A
182		Amaryllis, <i>Hippeastrum reticulatum</i>	Amaryllidaceae	Fl A
183		Bougainvillea, Bougainvillea spectabilis	Nyctaginaceae	Fl A
184		Morning Glory, <i>Ipomoea indica</i>	Convolvulaceae	Fl A
185	60c		Malvaceae	Fl A
185a	000	SS/6 (Sc#180–85) (imperf)	Wai vaceae	1171
	(Sah		1006)	
MALAYSIA 42a	•	<b>ah</b> ) <b>1986?</b> (Agriculture & Arms Type of Johore Pepper, <i>Piper nigrum</i>	Piperaceae	Fr A
			•	
MALAYSIA 147b	,	<b>Ingor</b> ) <b>1986?</b> (Agriculture & Arms Type w/ Sultan Oil Palm, <i>Elaeis guineensis</i>	Arecaceae	Fr A
				ПА
MALAYSIA	•		· · · · · · · · · · · · · · · · · · ·	
116b	30c	Rice, Oryza sativa	Poaceae	Fr A
MALAYSIA	(Wil	ayah Persekutuan) 1986? (Agriculture & Arms Type of Johore	1986)	
8b		Oil Palm, Elaeis guineensis	Arecaceae	Fr A
		2002? (Agriculture & Arms Type of 1986 v	v/ denom in "Sen")	
11a 1	0sen	Pepper, Piper nigrum	Piperaceae	Fr A
		Oil Palm, Elaeis guineensis	Arecaceae	Fr A
	700011			
MEXICO	2.50	2016 April 28 (World Intellectual Property	• •	N/ A C
	3.50p		Asparagaceae	VAS
<b>MOLDOVA</b>	4.64	<b>2016 April 15</b> (Flowers) (Set/6 & SS/6)		-
904	10b	Imortelle, Xeranthemum annuum	Asteraceae	Fl A
905	25b	Chamomile, Matricaria chamomilla (=recutita)	Asteraceae	Fl A
906	11	Chicory, Cichorium intybus	Asteraceae	Fl A
907	21	Dandelion, Taraxacum campylodes (=officinale)	Asteraceae	Fl A
908	31	Yarrow, Achillea millefolium	Asteraceae	Fl A
909	51	Woodland Sage, Salvia nemorosa	Lamiaceae	Fl A
909a		SS/6+3 labels (Sc#904–09)		

MOLDOV	A (cont	inued)	<b>2016 April 24</b> (Palm Sunday) (see Sc#912	& Sc#918)	
910	1.751	Willow, <i>Salix</i> sp.		Salicaceae	FIVB
		U/I Palm		Arecaceae	Fl V B U
011 1			2016 May 27 (WWF Protected Flora) (Blo	*	751.4
911a–d	111	Gladiolus imbricat	us	Iridaceae	Fl A
			<b>2016 June 19</b> (Pentecost) (see Sc#910 & S	•	
912	1.751	Woodland Sage, Sa		Lamiaceae	Fl V B
		Walnut, Linden, Ju	glans regia	Juglandaceae Malvaceae	Fl V B Fl V B
		Linden, <i>Tilia</i> sp.			
010	1 751	Dadatuara Caliana	<b>2016 July 7</b> (Birth of John the Baptist) (see		
918	1.751	Bedstraw, Galium Wheat, Triticum ae		Rubiaceae Poaceae	Fl Fr B Fl Fr B
	. == 0.1	•			11111
NEW CAI			<b>2016 March 14</b> (Endemic Conifers & Palm		тр
1206	12011	Cyphophoenix nuce Sapin de Comboui,		Arecaceae Cupressaceae	T B T B
		Clinosperma macro		Arecaceae	ТВ
		Coast Araucaria, A	•	Araucariaceae	ТВ
		Agathis moorei	tucuru uxuruns	Araucariaceae	T B
PANAMA		C	<b>2015 December 1</b> (Sc#923a & b surch in s	ilver)	
		Sterculia apetala	2013 December 1 (Se#)23a & 0 surem in s	Malvaceae	Fr T A
		Peristeria elata		Orchidaceae	Fl A
		Sterculia apetala		Malvaceae	Fr T A
		Peristeria elata		Orchidaceae	Fl A
PAPUA N	EW GU	JINEA	<b>2014</b> (Sc#1356 & 1358 with sans-serif surc	ch like Sc#1732H)	
1732V			yllum (Sc#1358 surch)	Calophyllaceae	Fl A
1732W		Bixa orellana (Sc#		Bixaceae	Fl A
PITCAIR	N ISLA	ND	<b>2016 October 19</b> (Ferns) (Set/4 & SS/2)		
821		Dicranopteris linea		Gleicheniaceae	V A
822	\$1	Loxoscaphe gibber	osum	Aspleniaceae	V A
823	\$3	Ctenitis cumingii		Dryopteridaceae	V A
824	\$3.40	Angiopteris chaulie	odonta	Marattiaceae	V A
824a		SS/2 (Sc#823–24)			
POLAND			<b>2016</b> (Fruit & Flowers Type of 2009) (Set/	*	
4235		Iris, <i>Iris</i> sp.		Iridaceae	Fl A
4236	6z	Lily, <i>Lilium</i> sp.		Liliaceae	Fl A
<b>SERBIA</b>			2016 May 26 (European Nature Protection		
743	50d	Leucojum aestivum	(Kucaj-Beljanica Mountain Massif)	Amaryllidaceae	Fl B
<b>SPAIN</b>			2016 June 9 (Spanish Gastronomy) (SS/2)		
4127b	\$1.30	Saffron & Crocus f	rom La Mancha, Crocus sativus	Amaryllidaceae	Fl A MS
SURINAN	1		<b>2016 July 13</b> (Flowers) (Block/12)		
1497a	\$1.50	Pheasant's Eye, Ad		Ranunculaceae	Fl A MS
1497b	\$1.75			Capparaceae	Fl A MS
1497c	\$2.50		Convallaria majalis	Asparagaceae	Fl A MS
1497d	\$2.75	_	rythronium dens-canis	Liliaceae	FI A MS
1497e	\$3.50	Bluebells, Hyacinti		Asparagaceae	FI A MS
1497f	\$3.75	English Iris, Iris la	пуона	Iridaceae Iridaceae	FI A MS
1497g	φ <b>4.</b> 30	Iris persica		muaceae	Fl A MS

SURINA	M (conti	nued)		
1497h	\$4.75	·	Asparagaceae	Fl A MS
1497i	\$5.50		Papaveraceae	Fl A MS
1497j	\$5.75	Tuberose, Polianthes tuberosa	Asparagaceae	Fl A MS
1497k	\$6.50		Fabaceae	Fl A MS
14971		Nasturtium, Tropaeolum majus	Tropaeolaceae	Fl A MS
SWEDE			•	11111120
2784	(6.50k)	2016 August 25 (Trees in Autum	Betulaceae	ТА
2785a	. ,	Yellow Birch, Betula pendula (coil) (s/a)	Betulaceae	
	(6.50k)	U/I trees (external forest view)	D	TAU
2785b	(6.50k)	Mountain Ash or Rowan, <i>Sorbus</i> sp.	Rosaceae	TA
2785c	(6.50k)	U/I trees (with lake)		TAU
2785d	(6.50k)	` <b>U</b>		TAU
2785e	(6.50k)	U/I trees (internal forest view)		TAU
2785f		Bklt/10 (2ea Sc#2785a–e)		
2785		Vert Strip/5 (Sc#2785a–e)		
SWITZI	ERLAND	2016 September 8 (Poppies)		
Surtax w	as for Em	ergency Aid Fund for Victims of Compulsory Social Mo	easures and Forced Fostering.	
B782	100c+50c	Poppies, Papaver rhoeas	Papaveraceae	Fl B
TANZA		<b>1997</b> (Flower Type of 1997–2004	,	
1571A		Zinnia, Zinnia elegans	Asteraceae	Fl A
13/111	330311		Asteraceae	1171
2227.4	400.1	<b>2004</b> (Sc#1571 surch)		T-1 A
2337A	400sh	Canna, Canna indica	Cannaceae	Fl A
TOKEL		2016 October 5 (Tokelau Langua	age Week) (Set/4 & SS/4)	
461	40c	Coconut, Cocos nucifera	Arecaceae	Fr A
464	\$3	Breadfruit, Artocarpus altilis	Moraceae	Fr A
464a		SS/4 (Sc#461–64)		
TRISTA	N DA CU	<b>2016</b> (Biodiversity) (Set/12)		
1089	25p	Bog Fern, Blechnum palmiforme	Blechnaceae	V A
1090	25p		Lycopodiaceae	V A
1094		Gough Brass Button, Cotula goughensis	Asteraceae	Fl A
TUDIZE	_		(6.4/2)	
TURKE		<b>2016 April 23</b> (Expo 2016 Antaly		ELD
3495	2.801	Peony, Paeonia kesrouanensis (=turcica) (with emble	m) Paeoniaceae	Fl B
UNITEI	NATIO	NS (New York) 2016 September 24 (World Wild	life Conference, Johannesburg	g) (MS/4)
1145d		Disa uniflora	Orchidaceae	Fl A
LIMITEL	NATIO	NC (Conord) 2016 Sontombor 24 (World Wild	life Conference Johanneshum	~) (MC/4)
		NS (Geneva) 2016 September 24 (World Wild	· · · · · · · · · · · · · · · · · · ·	•
628d	211	Anacampseros (=Avonia) quinaraia	Anacampserotacea	ne Fl A
UNITEI	NATIO	NS (Vienna) 2016 September 24 (World Wild	life Conference, Johannesburg	g) (MS/4)
596d	€1.70	Mystacidium capense	Orchidaceae	Fl A
UZBEK	ISTAN	<b>2016 May 23</b> (Flowers) (Set/2 &	SS/1)	
805	1300s	Caper, Capparis spinosa	Capparaceae	Fl A
806	1500s	Devil's Trumpet or Metel, <i>Datura metel</i>	Solanaceae	Fl A
807		•	Paeoniaceae	Fl A SS
007	2300S	refineal reony, r aeoma tenutjoua	r acomaceae	1.1 A 99

#### STAMPED POSTAL CARD

The US Postal Service has announced that it plans to issue a new non-denominated (34c) stamped postal card as part of its 2017 stamp program. It will be the first postal card issued by the USPS in about two years. No issue date has yet been set.



The new postal card features an illustration of a Chilean Blue Crocus (*Tecophilaea cyanocrocus*) from pre-existing artwork by illustrator and designer Dugald Stermer (1936–2011). His penciled calligraphy under the flower indicates one of its common names Azulillo—loosely translated from Spanish, it means "little blue thing"— with its botanical name above.

The Chilean Blue Crocus has brilliant blue flowers and is hardy in seven of nine U.S. Department of Agriculture zones. It generally flowers in February or March in North America. Despite its common name, it is not a true crocus at all. Instead, it belongs to the family Tecophilaeaceae.

It grows on stems up to four inches (10 cm) tall, with one to three linear fleshy leaves. The single flowers are approximately one inch (2.5 cm) across, goblet shaped, and are an unusual deep gentian blue color, with a whitish center. The root is a nearly sphere-shaped corm with a fibrous cover.

The flower is native to central Chile and was only known to grow in the range of hills around Santiago at about 3,000 meters above sea level. It was thought to be extinct in the wild due to over-collecting, over-grazing, and habitat destruction. However, in the spring of 2001, a large population was discovered on private land south of Santiago.

ST. VINCENT & THE GRENADINES



## **FUNGI**

#### **Editor**

## Dr. Paul A. Mistretta, BU1681

#### **New Listings**

Scott# Denom Common Name/Scientific Name Family Code [Ed. Note: Occasionally in this section and also in the Herpetology section, we will note a species that is known to be poisonous by marking it with a (\$\sqrt{2}\$) symbol. One should not infer that other species that are not so marked are non-poisonous or safe to handle/eat.]

non poi	isonous or s	age to nature, car.		
DJIBO	UTI	<b>2016 May 5</b> (Mushrooms) (MS/4 & SS/1) (	DJB16302a&b)	
954a	280fr	Yellowfoot or Funnel Chanterelle, Craterellus tubaeformis	Cantharellaceae	A
954b	280fr	Matsutake or Pine Mushroom, Tricholoma matsutake	Tricholomataceae	A
954c	280fr	Chanterelle or Girolle, Cantharellus cibarius	Cantharellaceae	A
954d	280fr	Wine Cap Stropharia, Stropharia rugosoannulata	Strophariaceae	A
		(Cap: Stropharia rugoso)	Strophariaceae	A
974	SS 960fr	Penny Bun, Cep, Porcino or Porcini; Boletus edulis	Boletaceae	A
	Margin	LL: Same species		
DJIBO	UTI	2016 September 26 (Mushrooms) (MS/4 &	z SS/1)	
1037a	260fr	Netted Rhodotus or Rosy Veinca, Rhodotus palmatus	Physalacriaceae	A
1037b	260fr	Bamboo Fungus or Veiled Lady, Phallus indusiatus	Phallaceae	A
1037c	260fr	Saffron Milk Cap or Red Pine Mushroom, Lactarius deliciosus	Russulaceae	A
1037d	260fr	Rough-stemmed Bolete or Birch Bolete, Leccinum scabrum	Boletaceae	A
1056	SS 960fr	Morel or Sponge Morel, Morchella esculenta	Morchellaceae	A
	Margin	UL: Fleecy Milk-cap, Lactifluus vellereus	Russulaceae	Z
		UR: Porcelain Fungus, Oudemansiella mucida	Physalacriaceae	Z
		Bot: Orange Peel Fungus, Aleuria aurantia	Pyronemataceae	Z
ESTON	NIA	<b>2016 September 8</b> (Mushroom)		
824	65c	Fly Agaric or Fly Amanita, Amanita muscaria (\$)	Amanitaceae	A
MACE	DONIA	<b>2016 May 10</b> (Europa: Flora & Fauna) (SS/	<sup>'</sup> 1)	
713	Margin	LL: U/I Boletes (with bear)	Boletaceae	UZ



#### IMPORTANCE OF FUNGI IN HUMAN LIFE

Although we often think of fungi as organisms that cause disease and rot food, fungi are important to human life on many levels. They influence the well-being of human populations on a large scale because they are part of the nutrient cycle in ecosystems. They also have other ecosystem uses, such as pesticides.

#### **Biological Insecticides**

As animal pathogens, fungi help to control the population of damaging pests. These fungi are very specific to the insects they attack. They do not infect other animals or plants. Fungi are currently under investigation as potential microbial insecticides, with several already on the market. For example, the fungus *Beauveria bassiana* is being tested as a possible biological control agent for the recent spread of Emerald Ash Borer (*Agrilus planipennis*).

#### **Farming**

The mycorrhizal relationship between fungi and plant roots is essential for the productivity of farm land. Without the fungal partner in root systems, 80–90 percent of trees and grasses would not survive. Mycorrhizal fungal inoculants are available as soil additives from gardening supply stores and supporters of organic agriculture.

#### **Food**

Fungi figure prominently in the human diet. Morels, shiitake mushrooms, chanterelles, and truffles are considered delicacies. The Meadow Mushroom (*Agaricus campestris*) appears in many dishes. Molds of the genus *Penicillium* ripen many cheeses. They originate in the natural environment such as the caves of Roquefort, France, where wheels of sheep milk cheese are stacked to capture the molds responsible for the blue veins and pungent taste of the cheese.

Fermentation of grains to produce beer and of fruits to produce wine is an ancient art that humans in most cultures have practiced for millennia. Ancient humans acquired wild yeasts from the environment and used them to ferment sugars into carbon dioxide and ethanol under anaerobic conditions.

It is now possible to purchase isolated strains of wild yeasts from different wine-making regions. Louis Pasteur was instrumental in developing a reliable strain of Brewer's Yeast (*Saccharomyces cerevisiae*) for the French brewing industry in the late 1850s.

Saccharomyces cerevisiae, also known as baker's yeast, is an important ingredient in bread, a food that has been considered a staple of human life for thousands of years. Before isolated yeast became available in modern times, humans simply let the dough collect yeast from the air and rise over a period of hours or days. A small piece of this leavened dough was saved and used as a starter (source of the same yeast) for the next batch, much in the same way sourdough bread is made today.

#### Medicine

Many secondary metabolites of fungi are of great commercial importance. Fungi naturally produce antibiotics to kill or inhibit the growth of bacteria, limiting their competition in the natural environment. Important antibiotics, such as penicillin and the cephalosporins, can be isolated from fungi.

Valuable drugs isolated from fungi include the immunosuppressant drug cyclosporine (which reduces the risk of rejection after organ transplant), the precursors of steroid hormones, and ergot alkaloids used to stop bleeding.

Psilocybin is a compound found in fungi such as *Psilocybe semilanceata* and *Gymnopilus junonius*, which have been used for their hallucinogenic properties by various cultures for thousands of years.

As simple eukaryotic organisms, fungi are important model research organisms. Many advances in modern genetics were achieved by the use of the Red Bread Mold *Neurospora crassa*. Additionally, many important genes originally discovered in S. cerevisiae served as a starting point in discovering analogous human genes. As a eukaryotic organism, the yeast cell produces and modifies proteins in a manner similar to human cells. This makes yeast a much better organism for use in recombinant DNA technology experiments.

**Source:** "Importance of Fungi in Human Life." *Boundless Biology*. Boundless, 20 Sep 2016. Retrieved 17 Feb 2017, from *https://www.boundless.com/biology/textbooks/boundless-biology-textbook/fungi-24/importance-of-fungi-in-human-life-153/importance-of-fungi-in-human-life-601-12945/.* 

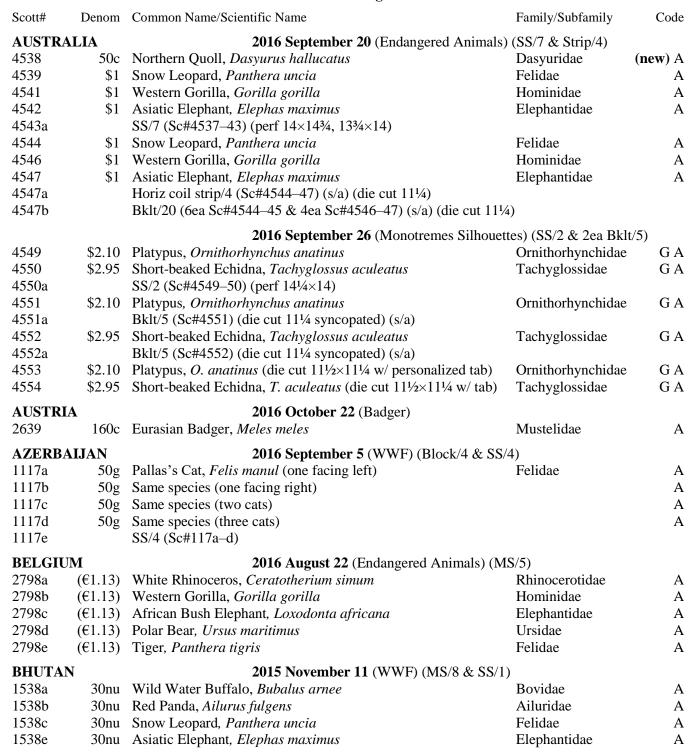


## **MAMMALIA**

#### **Editor**

#### Michael Prince, LM68

#### **New Listings**



BHUTAN (continued)					
1538g		Gee's Golden Langur, <i>Trachypithecus geei</i>	Cercopithecidae	A	
1538h	30nu	Tiger, Panthera tigris	Felidae	A	
		Bharal, Pseudois nayaur	Bovidae	A	
ROSNIA 8	& HFR7	ZEGOVINA (Serb) 2016 October 14 (River Fauna) (Set/5)			
550		Eurasian Beaver, Castor fiber	Castoridae	A	
	•	·	Custoffuuc	• • • • • • • • • • • • • • • • • • • •	
BOTSWA		<b>2015 July 15</b> (Buffalos) (Set/4 & SS/4)	D '1		
979	4p	African Buffalo, Syncerus caffer (head) (perf 133/4×131/4)	Bovidae	A	
980	5.90p	African Buffalo, Syncerus caffer (two bulls) (perf 13 <sup>3</sup> / <sub>4</sub> ×13 <sup>1</sup> / <sub>4</sub> )	Bovidae	A	
981	7.80p	African Buffalo, Syncerus caffer (herd) (perf 13¾×13¼)	Bovidae	В	
982	10-	Lion, Panthera leo  African Proffela, Sungarya auffen (with calf) (parf 121/v/123/)	Felidae Bovidae	В	
982 982a	10p	African Buffalo, <i>Syncerus caffer</i> (with calf) (perf 13 <sup>1</sup> / <sub>4</sub> ×13 <sup>3</sup> / <sub>4</sub> ) SS/4 (Sc#979–82) (perf 14)	Dovidae	A	
902a		* * * * * * * * * * * * * * * * * * * *			
000		2015 November 20 (Vervet Monkeys) (Set	· ·		
988	4p	Vervet Monkey, Chlorocebus pygerythrus	Cercopithecidae	A	
989	5.90p	Same species		A	
990	7.80p	Same species		A	
991	10p	Same species		A	
991a		SS/4 (Sc#988–91)			
991b		SS/4 (Sc#988–91) (ovpt Thailand 2016 emblem)			
CUBA		<b>2015 April 15</b> (Wild Cats) (Set/6 & SS/1)			
5664	15c	Jaguar, Panthera onca	Felidae	A	
5665	35c	Puma, Puma concolor	Felidae	A	
5666	50c	Tiger, Panthera tigris	Felidae	A	
5667		Lion, Panthera leo	Felidae	A	
5668	75c	Cheetah, Acinonyx jubatus	Felidae	A	
5669	85c	Leopard, Panthera pardus	Felidae	A	
5670	SS 1p	Wild Cat, Felis silvestris	Felidae	A	
		<b>2016 March 10</b> (Fauna) (Set/4)			
5777	90c	American Bison, Bison bison	Bovidae	A	
5778	90c	Ocelot, Leopardus pardalis	Felidae	A	
5780	90c	West Indian Manatee, Trichechus manatus	Trichechidae	A	
		2016 May 23 (Extinct & Endangered Hutia	as) (Set/6 & SS/1)		
5806	5c	San Felipe Hutia, Mesocapromys sanfelipensis	Capromyidae	A	
5807	15c	Dwarf Hutia, Mesocapromys nanus	Capromyidae	A	
5808	35c	Cabrera's Hutia, Mesocapromys angelcabrerai	Capromyidae	(new) A	
5809	45c	Eared Hutia, Mesocapromys auritus	Capromyidae	(new) A	
5810	75c	Black-tailed Hutia, Mysateles melanurus	Capromyidae	A	
5811	85c	Prehensile-tailed Hutia, Mysateles prehensilis	Capromyidae	A	
5812	SS 1p	Desmarest's Hutia, Capromys pilorides	Capromyidae	A	
CZECH REPUBLIC 2016 September 7 (Animals in Czech Republic Zoos) (MS/4+2 labels)					
3685a	16k	Snow Leopard, Panthera uncia	Felidae	A	
3685b		Gemsbok, Oryx gazella	Bovidae	A	
		Lion, Panthera leo	Felidae	A	
3685c	24k	Black Rhinoceros, Diceros bicornis	Rhinocerotidae	A	
		African Wild Dog, Lycaon pictus	Canidae	A	
3685d	27k	Przewalski's Horse, Equus ferus przewalskii	Equidae	A	
	L label	Cheetah, Acinonyx jubatus	Felidae	Z	
3685	R label	Buff-cheeked Gibbon, Nomascus gabriellae	Hylobatidae	Z	

CZECH REPUBLIC (continued)					
3685		UR: Golden Lion Tamarin, Leontopithecus rosalia	Callitrichidae	Z	
		UL: Asiatic Elephant, Elephas maximus	Elephantidae	Z	
		MR: Geoffrey's Marmoset, Callithrix geoffroyi	Callitrichidae	Z	
		ML: South African Fur Seal, Arctocephalus pusillus	Otariidae	Z	
		ML: Okapi, Okapia johnstoni	Giraffidae	Z	
		LR: Ring-tailed Lemur, Lemur catta	Lemuridae	Z	
		LL: Meerkat, Suricata suricatta	Herpestidae	Z	
DJIBO	OUTI	<b>2016 January 25</b> (Fauna) (MS/4 & SS/1)			
858a	260fr	Ring-tailed Lemur, Lemur catta	Lemuridae	A	
858b	260fr	Golden Lion Tamarin, Leontopithecus rosalia	Callitrichidae	A	
858c	260fr	Japanese Macaque, Macaca fuscata	Cercopithecidae	A	
858d	260fr	Mandrill, Mandrillus sphinx	Cercopithecidae	A	
877	SS 960fr	White-faced Capuchin, Cebus capucinus	Cebidae	A	
	Margin	R: Philippine Tarsier, Carlito syrichta	Tarsiidae	Z	
859a	260fr	Brown Big-eared Bat, Plecotus auritus	Vespertilionidae	A	
859b	260fr	Buffy Flower Bat, Erophylla sezekorni	Phyllostomidae	A	
859c	260fr	Little Yellow-shouldered Bat, Sturnira lilium	Phyllostomidae	A	
859d	260fr	Vampire Bat, Desmodus rotundus	Phyllostomidae	A	
878	SS 960fr	Golden Capped Fruit Bat, Acerodon jubatus	Pteropodidae	(new) A	
	Margin	Top: Vampire Bat, Desmodus rotundus	Phyllostomidae	Z	
		R: Large Flying Fox, Pteropus vampyrus	Pteropodidae	Z	
860a	260fr	Tiger, Panthera tigris	Felidae	A	
860b	260fr	Leopard, Panthera pardus	Felidae	A	
860c	260fr	Jaguar, Panthera onca	Felidae	A	
860d	260fr	Lion, Panthera leo	Felidae	A	
879	SS 960fr	Puma, Puma concolor	Felidae	A	
	Margin	UR: Snow Leopard, Panthera uncia	Felidae	Z	
861a	260fr	Masai Lion, Panthera leo nubica	Felidae	A	
861b	260fr	Southwest African Lion, Panthera leo bleyenberghi	Felidae	A	
861c	260fr	Lion, Panthera leo	Felidae	A	
861d	260fr	Congo Lion, Panthera leo azandica	Felidae	A	
880	SS 960fr	West African Lion, Panthera leo senegalensis	Felidae	A	
	Margin	LR: Transvaal Lion, Panthera leo krugeri	Felidae	Z	
862a		Dugong, Dugong dugon (swimming to right)	Dugongidae	A	
862b	260fr	Same species (two w/ calf)		A	
862c	260fr	Same species (facing forward)		A	
862d	260fr	Same species (feeding)		A	
881	SS 960fr	Dugong, Dugong dugon	Dugongidae	A	
		UR & LR: Same species (4ea)		Z	
863a		Long-beaked Common Dolphin, Delphinus capensis	Delphinidae	A	
863b	260fr	Dusky Dolphin, Lagenorhynchus obscurus	Delphinidae	A	
863c	260fr	Atlantic Spotted Dolphin, Stenella frontalis	Delphinidae	A	
863d	260fr	Short-beaked Common Dolphin, Delphinus delphis	Delphinidae	A	
882	SS 960fr	Striped Dolphin, Stenella coeruleoalba	Delphinidae	A	
	Margin	UR: Beluga, Delphinapterus leucas	Monodontidae	Z	
		LR: Common Bottlenose Dolphin, Tursiops truncatus	Delphinidae	Z	
864a	260fr	Beluga, Delphinapterus leucas	Monodontidae	A	
864b	260fr	Humpback Whale, Megaptera novaeangliae	Balaenopteridae	A	
864c	260fr	Southern Right Whale, Eubalaena australis	Balaenidae	A	
864d	260fr	Sperm Whale, Physeter catodon	Physteridae	A	

DJIBOUTI (continued)					
883	SS 960fr	Sperm Whale, Physeter catodon	Physeteridae	A	
	Margin	Top & R: Humpback Whale, Megaptera novaeangliae	Balaenopteridae	Z	
		<b>2016 July 28</b> (Dolphins)			
999a	260fr		Delphinidae	A	
999b	260fr	Common Bottlenose Dolphin, Tursiops truncatus (one)	Delphinidae	A	
999c	260fr	Striped Dolphin, Stenella coeruleoalba	Delphinidae	A	
999d	260fr	Common Bottlenose Dolphin, Tursiops truncatus (two)	Delphinidae	A	
	Margin	UL: Spinner Dolphin, Stenella longirostris	Delphinidae	Z	
1018	SS 960fr	Pink River Dolphin, <i>Inia geoffrensis</i> (also in margin)	Iniidae	ΑZ	
		2016 September 26 (Fauna)			
1021a		Polar Bear, Ursus maritimus (jaws open)	Ursidae	A	
1021b	260fr	Same species (one facing right)		A	
1021c	260fr	Same species (three bears)		A	
1021d	260fr	1 \ \ \ \ \ \ /		A	
1040		Polar Bear, <i>Ursus maritimus</i> (also in Top & R margin)	Ursidae	ΑZ	
1022a		Hippopotamus, Hippopotamus amphibious (facing left)	Hippopotamidae	A	
1022b		Same species (jaws open facing right)		A	
1022c		Same species (with calf)		A	
1022d		Same species (jaws open facing left)	***	A	
1041	SS 960fr		Hippopotamidae	ΑZ	
1023a	260fr		Ursidae	A	
1023b	260fr	, , , , , , , , , , , , , , , , , , , ,	Ailuridae	A	
1023c	260fr	, , , , , , , , , , , , , , , , , , , ,	Ailuridae	A	
1023d	260fr	, ,	Ursidae	A	
1042	SS 960fr	, <u>i</u>	Ursidae	A	
1024a		R: Red Panda, Ailurus fulgens (4ea)	Ailuridae	Z	
1024a 1024b	260fr	• • • • • • • • • • • • • • • • • • • •	Felidae Felidae	A	
10246 1024c	260fr 260fr	Tiger, Panthera tigris tigris (jaws open) Tiger, Panthera tigris tigris (facing right)	Felidae Felidae	A	
1024c 1024d	260fr	Siberian Tiger, <i>Panthera tigris</i> (facing fight)	Felidae Felidae	A A	
10240	SS 960fr	Siberian Tiger, <i>Panthera tigris altaica</i> (waiking lett) Siberian Tiger, <i>Panthera tigris altaica</i> (also in R margin)	Felidae	AZ	
1045 1026a	260fr	African Bush Elephant, <i>Loxodonta africana</i> (rubbing tree)	Elephantidae	A Z	
1026a 1026b	260fr		Elephantidae	A	
1026c		Same species (with handler)		A	
1026d		African Forest Elephant, Loxodonta cyclotis	Elephantidae	A	
1045		Asiatic Elephant, Elephas maximus (also in R margin)	Elephantidae	AZ	
ESTONIA 2016 August 25 (Mouse)					
823		Northern Birch Mouse, Sicista betulina	Muridae	A	
FALKI	FALKLAND ISLANDS 2016 August 1 (Dolphins & Whales Type of 2012)				
1172		Southern Right Whale, Eubalaena australis	Balaenidae	A	
FIJI		<b>2016 March 30</b> (New Year 2016: Year of	the Monkey) (Strip/A	⊥ lahel)	
1348a	38c	Stump-tailed Macaque, <i>Macaca arctoides</i>	Cercopithecidae	+ label)	
1348b	47c	Tonkin Snub-nosed Monkey, Rhinopithecus avunculus	Cercopithecidae	A	
1348c		Rhesus Macaque, Macaca mulatta	Cercopithecidae	A	
1348d		White-headed Langur, Trachypithecus poliocephalus	Cercopithecidae	A	
FRANC 2077		CO) 2016 September 9 (Florida Panther) Puma, <i>Puma concolor</i>	Felidae	٨	
2011	£1	i uma, i uma concoloi	relluae	A	

MACEI 706		<b>2016 April 26</b> (Hamster) Golden Hamster, <i>Mesocricetus auratus</i>	Muridae	(new) A	
		<b>2016 May 10</b> (Europa) (Set/2 & SS/1)			
710	50d	Red Fox, Vulpes vulpes	Canidae	C	
713		Brown Bear, Ursus arctos	Ursidae	A	
		Bot: Eurasian Badger, Meles meles	Mustelidae	Z	
MALA	_	<b>2016 January 26</b> (Primates) (Set/3 & SS/2	)		
1583	60s	Pigtail Macaque, <i>Macaca nemestrina</i>	Cercopithecidae	A	
1584	70s	Silvered Leaf Monkey, Trachypithecus cristatus	Cercopithecidae	A	
1585	80s	White-handed Gibbon, <i>Hylobates lar</i>	Hylobatidae	A	
a	\$3	Agile Gibbon, <i>Hylobates agilis</i> (one animals)	Hylobatidae	A	
b	\$3	Agile Gibbon, <i>Hylobates agilis</i> (three animals)	Hylobatidae	A	
1587	Ψ5	SS/2	Trytobatique	71	
		<b>2016 August 23</b> (Flora & Fauna) (SS/1 & N	MS/7)		
1611	SS \$2	Giant Panda, Ailuropoda melanoleuca	Ursidae	A	
1612		Lesser Mouse-deer, <i>Tragulus kanchil</i> (also in margin)	Cervidae	(new) A	
	200			(110 11) 11	
NEVIS	¢ 1	2016 January 28 (Dolphins) (MS/6 & SS/		<b>A</b>	
1898a		Rough-toothed Dolphin, Steno bredanensis	Delphinidae	A	
1898b	\$4	Atlantic Spotted Dolphin, Stenella frontalis	Delphinidae Delphinidae	A	
1898c	\$4 \$4	Striped Dolphin, Stenella coeruleoalba	Delphinidae Delphinidae	A	
1898d 1898e	\$4 \$4	Common Bottlenose Dolphin, Tursiops truncatus	Delphinidae Delphinidae	A A	
1898f	\$4 \$4	Risso's Dolphin, Grampus griseus	Delphinidae Delphinidae	A	
1899	SS \$10	Fraser's Dolphin, <i>Lagenodelphis hosei</i> Short-beaked Common Dolphin, <i>Delphinus delphis</i>	Delphinidae Delphinidae	A A	
			-	А	
NEW C 1205	ALEDON 110fr	<b>IA 2016 February 8</b> (New Year 2016: Year of Agile Gibbon, <i>Hylobates agilis</i>	f the Monkey) Hylobatidae	A	
<b>NIUE</b>		2016 May 4 (Humpback Whales) (Set/ & S	SS/4)		
935	30c	Humpback Whale, Megaptera novaeangliae	Balaenopteridae	A	
936	\$1.40	Same species		A	
937	\$2	Same species		A	
938	\$4	Same species		Α	
938a		SS/4 (Sc#935–38)			
SERBIA 2016 April 27 (Fauna) (Horiz strip/4 + label)					
740a	23d	Eurasian Beaver, Castor fiber	Castoridae	A	
740d	70d	European Otter, Lutra lutra	Mustelidae	A	
TANZANIA 2013 August 1 (Surcharges)					
2713	500sh	Blue Wildebeest, <i>Connochaetes taurinus</i> (Sc#2511 surch)	Bovidae	В	
		Common Zebra, Equus quagga	Equidae	В	
2714	500sh	Common Chimpanzee, <i>Pan troglodytes</i> (Sc#2580 surch)	Hominidae	A	
TRIST	AN DA CU	NHA 2016 November 30 (Biodiversity) (Set/12)			
1099		Sub-Antarctic Fur Seal, Arctocephalus tropicalis	Otariidae	A	
VIETN		<b>3016 September 1</b> (WWF) (Set/4 & SS/8)			
3553	3000d	Oriental Small-clawed Otter, <i>Aonyx cinerea</i> (two in water)	Mustelidae	A	
3554	3000d	Same species (eating fish)	11100011000	A	
3555	4500d	Same species (two on shore)		A	
3556	8500d	Same species (two on rocks)		A	
3556a		SS/8 (2ea Sc#3553–56)		• •	

#### **WPA POSTERS**

The U.S. Postal Service will celebrate posters of the Work Projects Administration (WPA), striking and utilitarian artworks created by the Poster Division of the WPA Federal Art Project, with a self-adhesive booklet pane of 20 stamps containing ten different designs. The stamps will be issued on 7 March 2017, at the Franklin D. Roosevelt Presidential Library and Museum in Hyde Park, New York. The stamps will be on sale nationwide the same day. Each stamp pays the First Class "Forever" rate, currently 49 cents.

The USPS will also produce ten different Digital Color Postmarks for First Day Covers.

Each stamp features a vibrant example of the posters conceived and printed in workshops across the nation under the WPA, a broad-reaching program that provided millions of jobs during the Great Depression. Formed in 1935 as the Works Progress Administration and renamed the Work Projects Administration in 1939, the WPA operated until 1943.



The poster images used are from the Library of Congress, Prints & Photographs Division, WPA Poster Collection. The Library of Congress says that 2,000 different WPA posters are known to exist.

Antonio Alcalá served as the art director and designed the stamps with Maribel O. Gray. The stamps are produced using the Offset process by Ashton Potter, Ltd., at Williamsville, New York. The print run is 100 million stamps.

Half of the ten stamps show designs relating to the **Biology topic**. One poster created by Vera Bock shows a farmer and a factory worker with a stylized stalk of corn. Another promotes tourism in Puerto Rico with a colorful plant and palm trees and the Morro Fortress in the background.

A poster encouraging people to visit the zoo is decorated with a pair of herons, and two bighorn sheep are shown on another poster designed by J. Hirt publicizing the national parks. A poster promoting the benefits of hiking shows some stylized trees and shrubs.

Reproduction prints of these and other attractive WPA posters can be found offered by several on-line art sites.



## **ORNITHOLOGY**

## Editor Glenn G. Mertz, BU1455

#### Corrections/Updates



#### **DJIBOUTI – Vol. 65(2), p.109**

**Correction:** Under listing for Sunbirds, fourth listing stamp, 260fr value, two birds are shown on the stamp. I listed the bird on left, Plain-throated Sunbird, but missed the bird on the right side of the stamp. It is a Tacazze Sunbird (*Nectarinia tacazze*).

#### **INDIA**

**Correction:** A definitive bird stamp issued by India on 15 July 1975, a 50p value (Sc#679) that was originally listed as a Demoiselle Crane (*Anthropoides virgo*) by Chris Gibbons, and was also listed as a Common Crane (*Grus grus*) in the American Topical Association (ATA) Handbook #106, *Birds of the World in Philately*, by Beverly S. Ridgely and Gustavs E. Eglajs, published in 1984. Chris Gibbons, author of the website, *Birds of the World*, has now changed this to an Intermediate Egret, based on information he obtained from photographer, Peter Jackson, who stated it was an egret he took the photo at Bharatpur in India. Therefore, for those collectors out there that have this stamp in your collection, change the bird name to an Intermediate Egret (*Mesophoyx intermedia*). The *Scott Catalogue* has this stamp listed as a "flying crane."

#### NEW CALEDONIA - Vol. 63(3), p.183

**Correction:** Correct value for Horned Parakeet to 120fr.

#### NIGER – Vol. 65(2), p.141

**Correction:** Standard-winged Nightjar genus name should be *Caprimulgus*.

#### NIGER – Vol. 65(2), p.117

**Update:** Sc#1283b, 750fr, add Vol. 63(1) after both listings. Both currently list **new** after the family names.

#### SOLOMON ISLANDS - Vol. 64(4), p.259

**Update:** SS, Sc#1395, add Vol. 63(1) after the listing.

#### **SURINAME – Vol. 63(3), p.187**

**Correction:** Sc#1461b was incorrectly listed as Plumbeous Euphonia (*Euphonia plumbea*). Correct to Finsch's Euphonia (*Euphonia finschi*) and add Vol. 63(2) after listing, and correct family of Fringillidae. On page 121, of Vol. 63(2), in the *New Birds in the Philatelic Aviary* listing, change family name to Fringillidae, because Thraupidae is incorrect.

#### **URUGUAY – Vol. 65(3), p.216**

**Update:** Update Sc#2514e with Vol. 64(3) as part of the listing.

#### **New Issues**

Scott#	Denom	Common Name/Scientific Name	Family/Subfamily	Code
ARUBA		<b>2016 August 31</b> (Birds) (Set/8)		A
506	50c	Tricolored Heron, Egretta tricolor	Ardeidae	
507	85c	Snowy Egret, Egretta thula	Ardeidae	
508	90c	Roseate Spoonbill, Platalea ajaja	Threskiornithidae	
509	100c	Blue-winged Teal, Anas discors	Anatidae	
510	130c	Scarlet Ibis, Threskiornis aethiopicus	Threskiornithidae	
511	220c	Black Skimmer, Rynchops niger	Laridae	
512	250c	Ruby-topaz Hummingbird, Chrysolampis mosquitus	Trochilidae	
513	325c	Whistling Heron, Syrigma sibilatrix	Ardeidae	

<b>AUSTR</b> 4537 4538a	50c	2016 September 20 (Endangered Animals Orange-bellied Parrot, Neophema chrysogaster	) (Pair & SS/7) Psittaculidae	A
4538a 4543a	100c	Horiz pair (Sc#4537–38) SS/7 (Sc#4537–43)		
BANGLADESH		<b>2016 May 28</b> (Striking Color Birds of Bangladesh) (MS/8) tamp Show New York 2016. Each bird depicted within a circle.		A
852a 852b	10t	Nutmeg Mannikin, <i>Lonchura punctulata</i> Coppersmith Barbet, <i>Psilopogon haemacephala</i> (Cap: <i>Megalaima haemacephala</i> )	Estrildidae Megalaimidae	
852c 852d 852e 852f 852g 852h	10t 10t 10t 10t	Green Bee-eater, <i>Merops orientalis</i> Eastern Crimson Sunbird, <i>Aethopyga siparaja</i> Scarlet-backed Flowerpecker, <i>Dicaeum cruentatum</i> Asian Emerald Dove, <i>Chalcophaps indica</i> Orange Minivet, <i>Pericrocotus flammeus</i> Black-hooded Oriole, <i>Oriolus xanthornus</i>	Meropidae Nectariniidae Dicaeidae Columbidae Campephagidae Oriolidae	
BELAF		<b>2015 December 15</b> (Paintings) (SS/6)		A
	-tenant stan	aps with two featuring birds, for nature motifs in paintings by Be	larussian and Chinese artists.	
968b 968f	(9300r) (14400r)	Red-crowned Crane, <i>Grus japonensis</i> (denom "N") Same species (denom "P")	Gruidae	
979	(12600r)	<b>2016 March 17</b> (Bird of the Year) Common Goldeneye, <i>Bucephala clangula</i> (denom "H")	Anatidae	A
Joint iss	sue with Az	<b>2016 May 12</b> (Eagles) (Pair) erbaijan. Denominated with the letter "H." See Azerbaijan (Sc#1		A
984a 984b	(12600r) (12600r)		Accipitridae Accipitridae	
BELGI MS/10		<b>2016 June 13</b> (Birds & Flowers of Zwin Namps featuring birds in the top half of the sheet. Each stamp denotes the sheet of the sheet.		<b>A</b> le.
2793a 2793b 2793c 2793d 2793e	(74c) (74c)	Common Shelduck, <i>Tadorna tadorna</i> Common Tern, <i>Sterna hirundo</i> Barn Swallow, <i>Hirundo rustica</i> Pied Avocet, <i>Recurvirostra avosetta</i> Eurasian Spoonbill, <i>Platalea leucorodia</i>	Anatidae Laridae Hirundinidae Recurvirostridae Threskiornithidae	
BHUTA		<b>2014 May 10</b> (Flora & Fauna) (SS/1)		A
1493	SS 50nu	White-bellied Heron, Ardea insignis	Ardeidae Vol. 63(	
2015 November 11 (Bird Conservation) (MS/8 & SS/2) A One stamp with emblem for "Royal Society for Protection of Nature" and one with dancers in crane costumes.				
1536a 1536b 1536d		Black-necked Crane, <i>Grus nigricollis</i> (four cranes) Same species (two on ground) Same species (two in flight)	Gruidae	
1536e 1536f 1536h	15nu 15nu 15nu	Black-necked Crane, <i>Grus nigricollis</i> Same species (two with people of Phobji Gewog)	Ardeidae Gruidae	
1537a 1537b	SS 50nu SS 50nu		Gruidae Ardeidae	
1538f	30nu	<b>2015 November 11</b> (WWF) (MS/8) White-bellied Heron, <i>Ardea insignis</i>	Ardeidae	A

A

A

A

### BOSNIA & HERZEGOVINA (Serb) 2016 May 16 (Nature Protection) (Pair)

Printed in sheets of four each (Sc#544a-b) plus two labels. Only one shows a bird.

544a 90pf Black Stork, *Ciconia nigra* Ciconiidae

<b>BOTSWANA</b>		2015 September 28 (Vultures) (Set	Vultures) (Set/5 & SS/5)		
983	4p	Lappet-faced Vulture, Torgos tracheliotos	Accipitridae		
984	5p	White-headed Vulture, Trigonoceps occipitalis	Accipitridae		
985	5.90p	White-backed Vulture, Gyps africanus	Accipitridae		
986	7.80p	Hooded Vulture, Necrosyrtes monachus	Accipitridae		
987	10p	Cape Vulture, Gyps coprotheres	Accipitridae		
987a		SS/5 (Sc#983–87) (perf 14)			

BULGARIA 2016 September 13 (Storks)

Joint issue with Israel for migrating birds. See Israel (Sc#2115) below.

4772 2.201 White Stork, Ciconia ciconia Ciconiidae

# BURUNDI 2014 May 19 (Birds) Four MS/4 se-tenant stamps with title "Republique du Burundi" and four SS/4 with title "Oiseaux du Burundi." In

Four MS/4 se-tenant stamps with title "Republique du Burundi" and four SS/4 with title "Oiseaux du Burundi." In addition, a total of 16 SS exist, one for each of the 16 individual bird stamps shown on the sheets. None of these stamps have been assigned Scott numbers. Each MS has silhouettes of the four species on the sheet in the margins.

				C
a	1140fr	Helmeted Guineafowl, Numida meleagris	Phasianidae	
b	1140fr	Glossy Ibis, Plegadis falcinellus	Threskiornithida	e
c	1140fr	Gray Crowned-Crane, Balearica regulorum	Gruidae	
d	1140fr	Hamerkop, Scopus umbretta	Scopidae	
N/A		MS/4 (a–d) Republique du Burundi		
N/A		SS/4 (a–d) Oiseaux du Burundi		
	Margin	UR: Marabou Stork, Leptoptilos crumenifer	Ciconiidae	
		LR: Ruff, Philomachus pugnax	Scolopacidae	
a	3090fr	Crowned Hawk-Eagle, Stephanoaetus coronatus	Accipitridae	
b		African Fish-Eagle, Haliaeetus vocifer	Accipitridae	
c		Black-breasted Snake-Eagle, Circaetus pectoralis	Accipitridae	
d	3090fr	Gray Kestrel, Falco ardosiaceus	Falconidae	Vol. 63(3)
N/A		MS/4 (a–d) Republique du Burundi		
N/A		SS/4 (a–d) Oiseaux du Burundi		
	Margin	UR: Palm-nut Vulture, Gypohierax angolensis	Accipitridae	
		LR: African harrier-Hawk, Polyboroides typus	Accipitridae	
a	3190fr	R: Red-chested Owlet, Glaucidium tephronotum	Strigidae	
		L: Pearl-spotted Owlet, Glaucidium perlatum	Strigidae	
b		Southern White-faced Owl, Ptilopsis granti	Strigidae	
c		Spotted Eagle-Owl, Bubo africanus	Strigidae	
d	3190fr	Marsh Owl, Asio capensis	Strigidae	
N/A		MS/4 (a–d) Republique du Burundi		
N/A		SS/4 (a–d) Oiseaux du Burundi		
	Margin	UR: African Barred Owlet, Glaucidium capense	Strigidae	
		LR: Pharaoh Eagle-owl, Bubo ascalaphus	Strigidae	
a		Double-toothed Barbet, Lybius bidentatus	Capitonidae	
b		Red-billed Firefinch, Lagonosticta senegala	Estrildidae	
С	3690fr	Black-fronted Bushshrike, <i>Telophorus nigrifrons</i> (Cap: <i>Chlorophoneus sulfureopectus</i> )	Malaconotidae	
d	3690fr	Little Bee-eater, Merops pusillus (Cap: Merops variegatus)	Meropidae	

BURU	J <b>NDI</b> (contin	ued)		
N/A	·	MS/4 (a–d) Republique du Burundi		
N/A		SS/4 (a–d) Oiseaux du Burundi		
	Margin		Alcedinidae	
		MR: Red-headed Bluebill, Spermophaga ruficapilla	Estrildidae	
		LR: Southern Red Bishop, Euplectes orix	Ploceidae	
CENT	RAL AFRI	CAN REPUBLIC 2016 February 11 (Bee-eaters) (MS/4 & S	S/1)	A
a		European Bee-eater, <i>Merops apiaster</i> (in flight)	Meropidae	
b	750fr	Same species (two facing left)	-	
c	750fr	Same species (two with insect in beaks)		
d	750fr	Same species (one with insect in beak)		
	_	LR: Same species (with wings spread)		
N/A		European Bee-eater, Merops apiaster	Meropidae	
	Margin	R: Same species (on branch)		
		<b>2016 February 11</b> (Pigeons) (MS/4 & SS/1	)	A
a	900fr	Nicobar Pigeon, Caloenas nicobarica	Columbidae	
b		European Turtle-Dove, Streptopelia turtur	Columbidae	
c		Metallic Pigeon, Columba vitiensis	Columbidae	
d	900fr	Common Wood-Pigeon, Columba palumbus	Columbidae	
		Bot: U/I pigeon species		
N/A	SS 3000fr	Thick-billed Pigeon, Treron curvirostra	Columbidae	
	Margin	R: U/I pigeon species		
		<b>2016 February 11</b> (Kites) (MS/4 & SS/1)		A
a	900fr	Black Kite, <i>Milvus migrans</i> (flying to right)	Accipitridae	
b		Same species (flying to left)	1	
c		Same species (two birds)		
d		Brahminy Kite, <i>Haliastur indus</i>	Accipitridae	
	Margin	Bot: Black Kite, Milvus migrans	Accipitridae	
N/A	SS 3000fr	Brahminy Kite, Haliastur indus	Accipitridae	
	Margin	LR: Same species		
		<b>2016 May 16</b> (Cruise Ships) (MS/4)		C
a	750fr	Black-headed Gull, Chroicocephalus ridibundus	Laridae	
		<b>2016 June 20</b> (175th anniv. Alexander Wils	con) (MS/1 & SS/1	<b>A</b>
N/A	750fr	L: Blue Grosbeak, <i>Passerina caerulea</i>	Cardinalidae	i) A
1.1/11	75011	R: Chipping Sparrow, Spizella passerina (Cap: Fringilla)	Emberizidae	
N/A	750fr	R: Ruby-crowned Kinglet, Regulus calendula	Regulidae	
1 1/1 1	, 5 011	L: Red-tailed Hawk, <i>Buteo jamaicensis</i>	Accipitridae	
N/A	750fr	L: Lewis's Woodpecker, <i>Melanerpes lewis</i>	Picidae	Vol. 65(3)
1 1/1 1	, 5 011	R: Western Tanager, Piranga ludoviciana	Cardinalidae	, 51, 50 (0)
N/A	750fr	Brown Creeper, Certhia americana	Certhiidae	
N/A		L: Painted Bunting, <i>Passerina ciris</i>	Cardinalidae	
		R: Prothonotary Warbler, <i>Protonotaria citrea</i>	Parulidae	
	Margin	UR: Long-eared Owl, Asio otus	Strigidae	
	C	UL: Seaside Sparrow, Ammodramus maritimus	Emberizidae	
		(Cap: Fringilla maritima)		
		ML: Saltmarsh Sparrow, Ammodramus caudacutus	Emberizidae	Vol. 65(4)
		(Cap: Fringilla caudacuta)		` '
		LL: Hen Harrier, Circus cyaneus	Accipitridae	

CENTRAL AFRICAN REPUBLIC 2016 July 18 (PhilaTaipei 2016) (MS/4)				
b	500fr	Formosan Magpie, Urocissa caerulea	Corvidae	
		<b>2016 July 18</b> (Owls) (MS/4 & SS/1)		A
a	900fr	Snowy Owl, Bubo scandiacus	Strigidae	
b	900fr	Barn Owl, Tyto alba	Tytonidae	
c	900fr	Little Owl, Athene noctua	Strigidae	
d	900fr	Eurasian Eagle-Owl, Bubo bubo	Strigidae	
	Margin	UR: Boreal Owl, Aegolius funereus	Strigidae	
		LR: Bare-legged Owl, Gymnoglaux lawrencii	Strigidae	
		(Cap: Margarobyas lawrencii)		
N/A	SS 3000fr	Great Gray Owl, Strix nebulosa	Strigidae	
	Margin	Top: Boreal Owl, Aegolius funereus	Strigidae	
		L: Great Horned Owl, Bubo virginianus	Strigidae	
		<b>2016 July 18</b> (Parrots) (MS/4 & SS/1)		A
a	750fr	Scarlet Macaw, Ara macao	Psittacidae	
b	750fr	Eastern Rosella, <i>Platycercus eximius</i>	Psittaculidae	
c		Rose-ringed Parakeet, <i>Psittacula krameri</i>	Psittaculidae	
d		Blue-throated Macaw, Ara glaucogularis	Psittacidae	
	Margin	Blue-and-yellow Macaw, Ara ararauna	Psittacidae	
N/A	SS 2650fr	Blue-and-yellow Macaw, Ara ararauna	Psittacidae	
	Margin	L: Scarlet Macaw, Ara macao	Psittacidae	
		UR: Rosey-faced Lovebird, Agapornis roseicollis	Psittaculidae	
		<b>2016 July 18</b> (Waterbirds) (MS/4 & SS/1)		A
a	900fr	Azure Kingfisher, Ceyx azureus	Alcedinidae	
b		Greater Painted Snipe, Rostratula benghalensis	Rostratulidae	
c	900fr	Saddle-billed Stork, Ephippiorhynchus senegalensis	Ciconiidae	
d	900fr	White-tufted Grebe, Rollandia rolland	Podicipedidae	
	Margin	R: Greater Flamingo, <i>Phoenicopterus roseus</i>	Phoenicopteridae	
N/A	SS 3000fr	Northern Gannet, Morus bassanus	Sulidae	
	Margin	L: Sacred Ibis, Threskiornis aethiopicus	Threskiornithidae	;
		UR: White-throated Kingfisher, Halcyon smyrnensis	Alcedinidae	
COLO	MBIA	<b>2015 December 14</b> (Departments Type of 2	2003) (MS/12)	A
1430k	100p	Buffy Helmetcrest, Oxypogon stubelii	Trochilidae	Vol. 65(1)
CUBA		2015 October 4 (Marine Life) (Set/6)		$\mathbf{A}$
5573	75c	King Penguin, Aptenodytes patagonicus	Spheniscidae	
		2015 April 10 (Endangered Birds) (Set/6 &	SS/1)	A
5642	5c	Painted Bunting, Passerina ciris	Cardinalidae	
5643	15c	Swallow-tailed Manakin, Chiroxiphia caudata	Pipridae	
5644	20c	Cut-throat, Amadina fasciata	Estrildidae	
5645	75c	European Goldfinch, Spinus carduelis	Fringillidae	
		(Cap: Carduelis carduelis)		
5646		Gouldian Finch, Erythrura gouldiae (Cap: Chloebia gouldiae)	Estrildidae	
5647	90c	Silver-eared Mesia, Leiothrix argentauris	Leiothrichidae	
5648	SS 1p	Zapata Wren, Ferminia cerverai (imperf)	Troglodytidae	
	Margin	R: Tricolored Munia, Lonchura malacca	Estrildidae	
		2016 January 15 (Waterbirds) (Set/6 & SS	·	A
5744	10c	Common Kingfisher, Alcedo atthis	Alcedinidae	
5745	15c	White-tailed Tropicbird, <i>Phaethon lepturus</i>	Phaethontidae	
		(Cap: Phaethon rubricauda)		

<b>CUBA</b>	(continued)			
5746	45c	Canada Goose, Branta canadensis	Anatidae	
5747	75c	Sacred Ibis, Threskiornis aethiopicus	Threskiornithidae	
5748	85c	Mallard, Anas platyrhynchos	Anatidae	
5749	90c	Wood Stork, Mycteria americana	Ciconiidae	
5750	SS 1p	(Cap: <i>Branta canadensis</i> ) Atlantic Puffin, <i>Fratercula arctica</i> (imperf)	Alcidae	
2720	55 Ip		Therauc	В
5778	000	2016 March 10 (Fauna) (Set/4)	Damphastidaa	D
5777		Toco Toucan, <i>Ramphastos toco</i> (with <i>Leopardus pardalis</i> ) Ferruginous Hawk, <i>Buteo regalis</i> (with <i>Bison bison</i> )	Ramphastidae Accipitridae	
	I REPUBL		Ticospiritudo	A
3688	_	European Bee-eater, Merops apiaster	Meropidae	А
DENM		<b>2016 June 23</b> (Danish Porcelain Designs) (1	-	A
1754		Herring Gull, Larus argentatus	Laridae	
1758a	OIL.	Bklt/10 (2ea Sc#1754–58)	Darrage	
DJIBO	IJŦĬ	<b>2016 May 5</b> (Raptors) (MS/4 & SS/1)		A
a		Eastern Chanting Goshawk, Melierax poliopterus	Accipitridae Vol. 65	
b		Lappet-faced Vulture, Torgos tracheliotos	Accipitridae	/(3)
c		Eurasian Pygmy-Owl, Glaucidium passerinum	Strigidae	
d		Bateleur, <i>Terathopius ecaudatus</i>	Accipitridae	
N/A		Lesser Spotted Eagle, Clanga pomarina	Accipitridae	
1 1/ 1 1		Eurasian Eagle-Owl, <i>Bubo bubo</i>	Strigidae	
	Margin	Bateleur, <i>Terathopius ecaudatus</i>	Accipitridae	
			•	
ECUAI		<b>2015 November 11</b> (Tourism) (SS/1 & 2ea	Bklt/8)	A
The imp	perf SS show	ws four scenes within a circle with a condor in one scene.		
2170	SS \$5	Andean Condor, Vultur gryphus (imperf)	Cathartidae	
2171g	\$1	Collared Inca, Coeligena torquata	Trochilidae	
2172d	50c	Magnificent Frigatebird, Fregata magnificens	Fregatidae	
2172e	75c	Galapagos Penguin, Spheniscus mendiculus	Spheniscidae	
FINLA	ND	2016 September 9 (WWF) (Vert strip/3+3	etiquettes) (s/a)	C/ <b>A</b>
1519a	(€1.20)	Black-headed Gull, Chroicocephalus ridibundus (in bkgrd)	Laridae	
1519c		Lesser White-fronted Goose, Anser erythropus	Anatidae	
		2016 September 9 (People Enjoying Nature	e) (Bklt/6+6 etiquettes)	C
1521d	(€1.20)	Mute Swan, Cygnus olor (with people in row boat)	Anatidae	
FRANC	C <b>E</b>	2015 November 6 (70th anniv. UNESCO) (	(Official)	C
2075		Cattle Egret, <i>Bubulcus ibis</i> (with African Gnu)	Ardeidae	
		2015 November 13 (Roosters) (Single, MS	/4 & 2ea SS/2)	A
4916	(68c)	Red Junglefowl, Gallus gallus (Cap: Coq gaulois)	Phasianidae	11
4917a	(68c)	Same species (Cap: Coq de Houdan)	Phasianidae Phasianidae	
4917b	(68c)	Same species (Cap: Coq meusien)	Phasianidae	
4917c	(68c)	Same species (Cap: Coq de Marans)	Phasianidae Phasianidae	
4917	(000)	MS/4 (Sc#4916 & Sc#4917a–c)	1 Hastanidae	
Note	(136c)	SS/2 (Sc#4916 & Sc#4917b)		
Note	(136c)	SS/2 (Sc#4917a & Sc#4917c)		
11010	(1300)			
4000	(70.)	<b>2016 February 27</b> (Roosters) (Bklt/12)	Di ' ' '	A
4989	(70c)	Red Junglefowl, Gallus gallus	Phasianidae	

В

### **GUINEA**

This country, located on the coast of West Africa between Guinea-Bissau and Sierra Leone, is the former French overseas territory of French West Africa. It proclaimed itself an independent republic on 2 October 1958. It has issued large quantities of stamps. The Scott Publishing Company last listed issues from Guinea in 2004.

Between 2006 and 18 July 2016, it has issued one sheet of two stamps, 32 sheets of three stamps each, 40 sheets of four stamps each, four sheets of five stamps each, 13 sheets of six stamps each, and 70 SS—another country looking to pick the pockets of collectors. The following issues have been released since my last listing in Vol. 64(1).

### **2014 October 1** (Prehistoric Humans & Animals) (MS/4)

The name on the stamp is more grammatically correct, as amended by Florentino Ameghino in 1889, but the earlier genus name *Phorusrhacos*, given by him in 1887, has priority. The bird was known as the "Terrible Bird."

_				
c	15000fr	Phororhacos, Phorusrhacos longissimus	Phorusrhacidae	
		2014 October 27 (Stamps of the World) (W	VWF) (SS/1)	A
N/A	SS 40000fr	Common Redstart, Phoenicurus phoenicurus	Muscicapidae	
		UR: U/I owl	1	
		<b>2014 October 27</b> (Birds of Prey) (MS/4 &	<b>SS</b> /1)	A
a	10000fr	Griffon Vulture, Gyps fulvus	Accipitridae	A
b		Secretary-bird, Sagittarius serpentarius	Sagittariidae	
c		Osprey, Pandion haliaetus	Pandionidae	
d		Mountain Caracara, Phalcoboenus megalopterus	Falconidae	Vol. 64(2)
u.		LL: U/I eagle	Tureoman	, 61. 6 .(2)
N/A	_	Northern Goshawk, Accipiter gentilis	Accipitridae	
- 1/1 -		UR: Bateleur, Terathopius ecaudatus	Accipitridae	
	1,141.8111	LR: U/I owl	11001p11110110	
		<b>2015 March 20</b> (Lighthouses) (MS/4 & SS	/1)	В
a	10000fr	Black-headed Gull, Chroicocephalus ridibundus	Laridae	
b		Same species (with Kõpu lighthouse)		
c		Same species (with Diamond Head lighthouse)		
d		Same species (with Yokohama Marine Tower)		
N/A	SS 40000fr	Same species (with Jeddah lighthouse) (also in margin)		
		<b>2015 March 20</b> (Owls) (MS/4 & SS/1)		A
a	10000fr	Barn Owl, Tyto alba	Tytonidae	
b	15000fr	Boreal Owl, Aegolius funereus	Strigidae	
c	15000fr	R: Blakiston's Fish-Owl, Bubo blakistoni	Strigidae	
		L: Crested Owl, Lophostrix cristata	Strigidae	
d	10000fr	Little Owl, Athene noctua	Strigidae	
	Margin	LL & LR: Rock Eagle-Owl, Bubo bengalensis	Strigidae	
N/A	SS 40000fr	R: Striped Owl, Pseudoscops clamator	Strigidae	
		L: Marsh Owl, Asio capensis	Strigidae	
	Margin	Bkgrd: Snowy Owl, Bubo scandiacus	Strigidae	
		2015 March 20 (Hummingbirds) (MS/4 &	SS/1)	A
a	10000fr	Speckled Hummingbird, Adelomyia melanogenys	Trochilidae	Vol. 64(2)
b	15000fr	Amethyst Woodstar, Calliphlox amethystine	Trochilidae	
c	15000fr	Antillean Crested Hummingbird, Orthorhyncus cristatus	Trochilidae	
d		White-throated Mountain-gem, Lampornis castaneoventris	Trochilidae	Vol. 65(4)
	Margin	UL & LR: Ruby-throated Hummingbird, Archilochus colubris	Trochilidae	
		UR: Streamertail, Trochilus scitulus	Trochilidae	
		(Now a ssp. of <i>Trochilus polytmus</i> )		
		LL: Coppery-headed Emerald, Elvira cupreiceps	Trochilidae	

GUI	NEA (continu	ed)		
N/A		Sparkling Violetear, Colibri coruscans	Trochilidae	
		UL & LR: White-vented Violetear, Colibri serrirostris	Trochilidae	
		LL & MR: Brown Violetear, Colibri delphinae	Trochilidae	
		<b>2015 March 20</b> (Buffalos) (MS/4)		C
c	15000fr	Cattle Egret, <i>Bubulcus ibis</i> (on back of buffalo)	Ardeidae	C
C	1300011	-		
		<b>2015 June 22</b> (Birds of Prey) (MS/4 & SS/		A
a		Eurasian Buzzard, Buteo buteo	Accipitridae	
b		White-backed Vulture, Gyps africanus	Accipitridae	
c		Lesser Kestrel, Falco naumanni	Falconidae	
d		Red-footed Falcon, Falco vespertinus	Falconidae	
	Margin	UR: Bald Eagle, Haliaeetus leucocephalus	Accipitridae	
		ML: Osprey, Pandion haliaetus	Pandionidae	
		MR: Eurasian Sparrowhawk, Accipiter nisus	Accipitridae	
	~~ ~~~~	LL: Black Kite, Milvus migrans	Accipitridae	
N/A	SS 35000fr	African Fish-Eagle, Haliaeetus vocifer	Accipitridae	
	Margin	LL: Egyptian Vulture, Neophron percnopterus	Accipitridae	
		Bot: Eurasian Marsh-Harrier, Circus aeruginosus	Accipitridae	
		UR: California Condor, Gymnogyps californianus	Cathartidae	
		LR: Collared Owlet, Glaucidium brodiei	Strigidae	
		<b>2015 August 20</b> (Waterbirds) (MS/4 & SS/	1)	$\mathbf{A}$
a	10000fr	Red-crowned Crane, Grus japonensis	Gruidae	
b		Tufted Puffin, Fratercula cirrhata	Alcidae	
c	10000fr	Brown Pelican, Pelecanus occidentalis	Pelecanidae	
d		Black-browed Albatross, Thalassarche melanophris	Diomedeidae	
		UR: Brown Pelican, Pelecanus occidentalis	Pelecanidae	
N/A	SS 35000fr	White-naped Crane, Grus vipio	Gruidae	
	Margin	LR: Double-crested Cormorant, Phalacrocorax auritus	Phalacrocoracidae	
	_	Top: Northern Pintail, Anas acuta	Anatidae	
		UR: Siberian Crane, Grus leucogeranus	Gruidae	
		<b>2015 August 20</b> (Owls) (MS/4 & SS/1)		A
a	10000fr	Eastern Screech-Owl, Megascops asio	Strigidae	
b		Striped Owl, Pseudoscops clamator	Strigidae	
c		Burrowing Owl, Athene cunicularia	Strigidae	
d	10000fr	Brown Fish-Owl, <i>Ketupa zeylonensis</i> (Cap: <i>Bubo zeylonensis</i> )	Strigidae	
		R: Ural Owl, Strix uralensis	Strigidae	
N/A	SS 35000fr	Eurasian Eagle-Owl, <i>Bubo bubo</i>	Strigidae	
1 1/1 1		LR: Spotted Wood-Owl, Strix seloputo	Strigidae	
		UR: Eastern Screech-Owl, Megascops asio	Strigidae	
				D
	100000	<b>2015 August 20</b> (Lighthouses) (MS/4 & SS		В
a 1.		Black-headed Gull, Chroicocephalus ridibundus	Laridae	
b	10000fr	Same species (with Brunsbüttel Mole lighthouse)		
C	10000fr	Same species (with Stavoren lighthouse)		
d	10000fr	Same species (with Cape Reinga lighthouse)		
N/A	SS 35000fr	Same species (with Portland lighthouse) (also in R margin)		
		2015 September 3 (Endangered Species) (I	MS/4)	A
b	10000fr	Sokoke Scops-Owl, Otus ireneae	Strigidae	

GUIN	NEA (continu	ed) <b>2015 November 6</b> (African Skimmer) (WV	WF) (MS/4 & SS/1)	A
a b		African Skimmer, <i>Rynchops flavirostris</i> (two with chick) Same species (in flight to left)	Rynchopidae	
c	10000fr	Same species (in flight to right)		
d		Same species (one with chick & egg)		
N/A		African Skimmer, <i>Rynchops flavirostris</i> Bot: Same species (in flight)	Rynchopidae	
	Margin	•		
	100005	2015 November 25 (Parrots) (MS/4 & SS/		A
a b		Blue-and-yellow Macaw, Ara ararauna Scarlet Macaw, Ara macao	Psittacidae Psittacidae	
c		Galah, Eolophus roseicapilla	Cacatuidae	
d		Alexandrine Parakeet, <i>Psittacula eupatria</i>	Psittaculidae	
N/A		Derbyan Parakeet, Psittacula derbiana	Psittaculidae	
		UR: Gray Parrot, Psittacus erithacus	Psittacidae	
	C	Bot & LR: Blue-and-yellow Macaw, Ara ararauna	Psittacidae	
		<b>2015 November 25</b> (Bustards) (MS/4 & SS	S/1)	A
a	10000fr	Houbara Bustard, Chlamydotis undulata	Otididae	
b		White-quilled Bustard, Eupodotis afraoides	Otididae	
c	10000fr	(Cap: Afrotis afraoides) Kori Bustard, Ardeotis kori	Otididae	
d		Lesser Florican, Sypheotides indicus	Otididae	
N/A		Hartlaub's Bustard, Lissotis hartlaubii	Otididae	
		LR: Kori Bustard, Ardeotis kori	Otididae	
	C	LL: Houbara Bustard, Chlamydotis undulata	Otididae	
		2015 November 25 (Birds of Prey) (MS/4	& SS/1)	A
a	10000fr	Peregrine Falcon, Falco peregrinus	Falconidae	
b	10000fr	Eurasian Marsh-Harrier, Circus aeruginosus	Accipitridae	
c	10000fr	<b>U</b> , 1	Accipitridae	
d		Golden Eagle, Aquila chrysaetos	Accipitridae	
N/A		Bald Eagle, Haliaeetus leucocephalus	Accipitridae	
	Margin	MR: Eurasian Kestrel, Falco tinnunculus	Falconidae	
		LR: Osprey, Pandion haliaetus	Pandionidae	
1	100000	2016 March 18 (In Memory of 11 September 11 September 12 Memory of 11 September 12 Memory of 11 September 13 Memory of 11 September 14 Memory of 11 Memory of 11 September 14 Memory of 11		A
b	1000011	Bald Eagle, Haliaeetus leucocephalus	Accipitridae	
b	10000fr	<b>2016 June 3</b> (Chiang Kai-shek/PhilaTaipei Formosan Magpie, <i>Urocissa caerulea</i>	2016) (MS/4) Corvidae	A
Ü	1000011		Corvidue	
	10000fm	<b>2016 June 3</b> (Owls) (MS/4 & SS/1) Eurasian Eagle-Owl, <i>Bubo bubo</i>	Ctuicidos	A
a b	10000fr 10000fr	Great Gray Owl, Strix nebulosa	Strigidae Strigidae	
c		Northern Saw-Whet Owl, Aegolius acadicus	Strigidae	
d		Northern White-faced Owl, <i>Ptilopsis leucotis</i>	Strigidae	
N/A	SS 40000fr	Snowy Owl, Bubo scandiacus	Strigidae	
		UL: Great Gray Owl, Strix nebulosa	Strigidae	
	C	LR: Eurasian Eagle-Owl, Bubo bubo	Strigidae	
		<b>2016 June 3</b> (Dogs) (MS/4)		В
a	10000fr	U/I waterfowl (in mouth of hunting dog)		
b	10000fr	Ring-necked Pheasant, Phasianus colchicus	Phasianidae	
c	10000fr	Mallard, Anas platyrhynchos	Anatidae	

GUIN b		Golden-capped Parakeet, Aratinga auricapilla (Brazil Sc#2799b		A
	Margin	Chinstrap Penguin, <i>Pygoscelis antarcticus</i> (S. Georgia Sc#369)	Spheniscidae	
a b		<b>2016 July 18</b> (Seabirds) (MS/4 & SS/1) Brown Pelican, <i>Pelecanus occidentalis</i> Magnificent Frigatebird, <i>Fregata magnificens</i>	Pelecanidae Fregatidae	A
c		Emperor Penguin, Aptenodytes forsteri	Spheniscidae	
d		Atlantic Puffin, Fratercula arctica	Alcidae	
u		Bot: Jackass Penguin, Spheniscus demersus	Spheniscidae	
N/A		Northern Gannet, Morus bassanus	Sulidae	
		MR: Northern Gannet, Morus bassanus	Sulidae	
	υ	UR: Great Skua, Stercorarius skua	Stercorariidae	
		LR: Great Cormorant, Phalacrocorax carbo	Phalacrocoracidae	e
		<b>2016 July 18</b> (Dinosaurs) (MS/4)		A
d	10000fr	Archaeopteryx, Archaeopteryx lithographica	Archaeopterygida	
u .	1000011		Themacopierygrae	
	100000	<b>2016 July 18</b> (Kingfishers) (MS/4 & SS/1)	A.1. 1' '.1	A
a		Amazon Kingfisher, Chloroceryle amazona	Alcedinidae	VI 1 65(4)
b		Brown-headed Paradise-Kingfisher, Tanysiptera danae	Alcedinidae	Vol. 65(4)
C		Common Kingfisher, Alcedo atthis	Alcedinidae	
d		Woodland Kingfisher, Halcyon senegalensis	Alcedinidae	
<b>N</b> T / A	_	LL: Common Kingfisher, Alcedo atthis	Alcedinidae	
N/A		Azure Kingfisher, Ceyx azureus	Alcedinidae	
	Margin	LL: Common Kingfisher, Alcedo atthis	Alcedinidae	
		R: Laughing Kookaburra, Dacelo novaeguineae	Alcedinidae	
		<b>2016 July 18</b> (Hummingbirds) (MS/4 & SS	/1)	$\mathbf{A}$
a	10000fr	Tufted Coquette, Lophornis ornatus	Trochilidae	
b	10000fr	Ruby-topaz Hummingbird, Chrysolampis mosquitus	Trochilidae	
c	10000fr	White-necked Jacobin, Florisuga mellivora	Trochilidae	
d	10000fr	Puerto Rican Emerald, Chlorostilbon maugaeus	Trochilidae	
	Margin	LL: Rufous-crested Coquette, Lophornis delattrei	Trochilidae	
		Bot: Reddish Hermit, <i>Phaethornis ruber</i>	Trochilidae	
		LR: Fawn-breasted Brilliant, Heliodoxa rubinoides	Trochilidae	
N/A		Marvelous Spatuletail, Loddigesia mirabilis	Trochilidae	
	Margin	UR: Sparkling Violetear, Colibri coruscans	Trochilidae	
		Bot: Crimson Topaz, Topaza pella	Trochilidae	
		LL: Horned Sungem, Heliactin bilophus	Trochilidae	
		<b>2016 July 18</b> (Hornbills) (MS/4 & SS/1)		$\mathbf{A}$
a	10000fr	Wreathed Hornbill, Aceros undulates	Bucerotidae	
b		(Cap: Rhyticeros undulates)		
U	10000fr		Bucerotidae	Vol. 65(4)
c	10000fr 10000fr		Bucerotidae Bucerotidae	Vol. 65(4)
		Palawan Hornbill, Anthracoceros marchei		Vol. 65(4)
c	10000fr 10000fr	Palawan Hornbill, <i>Anthracoceros marchei</i> Rhinoceros Hornbill, <i>Buceros rhinoceros</i>	Bucerotidae	Vol. 65(4)
c	10000fr 10000fr	Palawan Hornbill, <i>Anthracoceros marchei</i> Rhinoceros Hornbill, <i>Buceros rhinoceros</i> Great Hornbill, <i>Buceros bicornis</i>	Bucerotidae Bucerotidae	Vol. 65(4)
c d	10000fr 10000fr Margin	Palawan Hornbill, <i>Anthracoceros marchei</i> Rhinoceros Hornbill, <i>Buceros rhinoceros</i> Great Hornbill, <i>Buceros bicornis</i> Bot: Knobbed Hornbill, <i>Aceros cassidix</i>	Bucerotidae Bucerotidae Bucerotidae	Vol. 65(4)
c d	10000fr 10000fr Margin SS 40000fr	Palawan Hornbill, Anthracoceros marchei Rhinoceros Hornbill, Buceros rhinoceros Great Hornbill, Buceros bicornis Bot: Knobbed Hornbill, Aceros cassidix Great Hornbill, Buceros bicornis	Bucerotidae Bucerotidae Bucerotidae Bucerotidae	Vol. 65(4)
c d	10000fr 10000fr Margin SS 40000fr	Palawan Hornbill, Anthracoceros marchei Rhinoceros Hornbill, Buceros rhinoceros Great Hornbill, Buceros bicornis Bot: Knobbed Hornbill, Aceros cassidix Great Hornbill, Buceros bicornis UR: Rhinoceros Hornbill, Buceros rhinoceros Bot: Rufous Hornbill, Buceros hydrocorax	Bucerotidae Bucerotidae Bucerotidae Bucerotidae Bucerotidae	Vol. 65(4)
c d	10000fr 10000fr Margin SS 40000fr	Palawan Hornbill, Anthracoceros marchei Rhinoceros Hornbill, Buceros rhinoceros Great Hornbill, Buceros bicornis Bot: Knobbed Hornbill, Aceros cassidix Great Hornbill, Buceros bicornis UR: Rhinoceros Hornbill, Buceros rhinoceros Bot: Rufous Hornbill, Buceros hydrocorax  2016 July 18 (Extinct Animals) (MS/4)	Bucerotidae Bucerotidae Bucerotidae Bucerotidae Bucerotidae	
c d N/A	10000fr 10000fr Margin SS 40000fr Margin	Palawan Hornbill, Anthracoceros marchei Rhinoceros Hornbill, Buceros rhinoceros Great Hornbill, Buceros bicornis Bot: Knobbed Hornbill, Aceros cassidix Great Hornbill, Buceros bicornis UR: Rhinoceros Hornbill, Buceros rhinoceros Bot: Rufous Hornbill, Buceros hydrocorax	Bucerotidae Bucerotidae Bucerotidae Bucerotidae Bucerotidae Bucerotidae	

<b>2016 July 18</b> (Endangered Animals) (MS/4 & SS/1)				A
a	10000fr	Atlantic Puffin, Fratercula arctica	Alcidae	
		Bot: Same species		
N/A	SS 40000fr	Blue-throated Macaw, Ara glaucogularis	Psittacidae	
		<b>2016 July 18</b> (Birds of Prey) (MS/4 & SS/1	)	$\mathbf{A}$
a	10000fr	Rough-legged Hawk, Buteo lagopus	Accipitridae	
b		Northern Harrier, Circus cyaneus	Accipitridae	
c	10000fr	Snowy Owl, Bubo scandiacus	Strigidae	
d		Peregrine Falcon, Falco peregrinus	Falconidae	
	Margin	LL: Rough-legged Hawk, Buteo lagopus	Accipitridae	
N/A		Golden Eagle, Aquila chrysaetos	Accipitridae	
	Margin	UR: Golden Eagle, Aquila chrysaetos	Accipitridae	
		LL: Snowy Owl, Bubo scandiacus	Strigidae	
		<b>2016 July 18</b> (Bee-eaters) (MS/4 & SS/1)		$\mathbf{A}$
a	10000fr	European Bee-eater, Merops apiaster	Meropidae	
b	10000fr	European Bee-eater, Merops apiaster	Meropidae	
c		Green Bee-eater, Merops orientalis	Meropidae	
d		White-fronted Bee-eater, Merops bullockoides	Meropidae	
		LR: Green Bee-eater, Merops orientalis	Meropidae	
N/A		Green Bee-eater, Merops orientalis	Meropidae	
	Margin		Meropidae	
		MR: White-fronted Bee-eater, <i>Merops bullockoides</i>	Meropidae	
		LR & LL: European Bee-eater, Merops apiaster	Meropidae	
		2016 September 26 (Lighthouses) (MS/4 &		$\mathbf{A}$
a		Dalmation Pelican, Pelecanus crispus	Pelecanidae	
d		Steller's Sea-Eagle, Haliaeetus pelagicus	Accipitridae	
	SS 40000fr	Bot: U/I gulls		
		<b>2016 September 26</b> (Owls) (MS/4 & SS/1)		$\mathbf{A}$
a	10000fr	Striped Owl, Pseudoscops clamator	Strigidae	
b	10000fr	Long-eared Owl, Asio otus	Strigidae	
c	10000fr	Spotted Wood-Owl, Strix seloputo	Strigidae	
d	10000fr		Strigidae	
N/A		Collared Scops-Owl, Otus lettia	Strigidae	
	Margin	UR: Long-eared Owl, Asio otus	Strigidae	
		Bot: Northern Saw-whet Owl, Aegolius acadicus	Strigidae	
GUY	ANA	<b>2016 February 20</b> (Capybaras) (MS/4)		$\mathbf{C}$
a	\$250	Cattle Tyrant, Machetornis rixosa (on back of capybara)	Tyrannidae	
ICEL	AND	2016 September 16 (80th anniv. Wreck of	Pourquoi-Pas?) (SS/1)	$\mathbf{C}$
1418	(480k)	Herring Gull, Larus argentatus (in flight over ship)	Laridae	
ISRA	EL	2016 September 13 (Bird Migration) (Sing	le)	A
Joint	issue with Bu	lgaria with the flags of both nations.		
2115	5s	White Stork, Ciconia ciconia	Ciconiidae	
LAT	VIA	<b>2016 May 20</b> (Birds) (Set/2)		A
935	71c	Eurasian Pygmy-Owl, Glaucidium passerinum	Strigidae	
936	€1.71	Great Spotted Woodpecker, Dendrocopos major	Picidae	

MACE	DONIA	<b>2016 May 10</b> (Europa) (Set/2 & MS/4)		В
710		UL: Rock Partridge, Alectoris graeca	Phasianidae	_
		UR: Griffon Vulture, Gyps fulvus	Accipitridae	
		LR: Egyptian Vulture, Neophron percnopterus	Accipitridae	
712a	50d	White-tailed Eagle, Haliaeetus albicilla	Accipitridae	
712d		Dalmatian Pelican, Pelecanus crispus	Pelecanidae	
MARS	HALL ISL	ANDS 2016 July 20 (Art of Howard Koslow) (MS	5/20)	A
1141d		Bald Eagle, Haliaeetus leucocephalus	Accipitridae	
MOZA	MBIQUE	<b>2013 June 25</b> (Elephants) (MS/4 & SS/1)	•	В
2903a	_	Cattle Egret, <i>Bubulcus ibis</i> (with elephant)	Ardeidae	ь
2903b		Same species (with one elephant)	7 Haciate	
2903c		Same species (with one crephant)  Same species (on head of elephant)		
2903d		Same species (with two elephants)		
2903		UL: Same species (in flight)		
2933		Same species (in riight)		
2733		UL & LR: Same species		
	Margin	•	(4.0.00(4)	
	1.6	2015 April 15 (Taiwan Blue Magpie) (MS/		$\mathbf{A}$
a		Formosan Magpie, Urocissa caerulea (facing left)	Corvidae	
b		Same species (two birds)		
C		Same species (facing front)		
d	16m	Same species (facing down)		
NT/A		Top: Same species	C	
N/A		Formosan Magpie, Urocissa caerulea	Corvidae	
	Margin	UR: Same species		
		<b>2015 June 15</b> (Seabirds) (MS/4 & SS/1)		$\mathbf{A}$
a		Great White Pelican, Pelecanus onocrotalus	Pelecanidae	
b		African Skimmer, Rynchops flavirostris	Rynchopidae	
c		Great Cormorant, Phalacrocorax carbo	Phalacrocoracid	ae
d		Cape Gannet, Morus capensis	Sulidae	
	_	LR: African Skimmer, Rynchops flavirostris	Rynchopidae	
N/A		African Penguin, Spheniscus demersus	Spheniscidae	
	Margin	LR: Cape Gannet, Morus capensis	Sulidae	
		LL: Black-browed Albatross, <i>Thalassarche melanophris</i>	Diomedeidae	
		<b>2015 June 15</b> (Pigeons & Doves) (MS/4 &	·	A
a		Ring-necked Dove, Streptopelia capicola	Columbidae	
b	46m	Zebra Dove, Geopelia striata	Columbidae	
c		Common Bronzewing, Phaps chalcoptera	Columbidae	Vol. 64(4)
d		Mourning Collared-Dove, Streptopelia decipiens	Columbidae	Vol. 64(4)
	Margin	LR: White-winged Collared Dove, Streptopelia reichenowi	Columbidae	new
N/A	SS 175m	Madagascar Blue-Pigeon, Alectroenas madagascariensis	Columbidae	
	Margin	UR: Common Bronzewing, <i>Phaps chalcoptera</i>	Columbidae	
		UL: African Collared-Dove, Streptopelia roseogrisea	Columbidae	
		ML & LR: Zebra Dove, Geopelia striata	Columbidae	
		MR: European Turtle-Dove, Streptopelia turtur	Columbidae	
		LL: Ringed-necked Dove, Streptopelia capicola	Columbidae	
		<b>2015 June 15</b> (Parrots) (MS/4 & SS/1)		$\mathbf{A}$
a	46m	Brown-necked Parrot, Poicephalus robustus	Psittacidae	
b	46m	Yellow-collared Lovebird, Agapornis personatus	Psittaculidae	
c	46m	Fischer's Lovebird, Agapornis fischeri	Psittaculidae	

MOZA	MBIQUE (	(continued)		
d d		Rose-ringed Parakeet, <i>Psittacula krameri</i>	Psittaculidae	
u		LL & LR: Gray Parrot, Psittacus erithacus	Psittacidae	
N/A		Gray Parrot, Psittacus erithacus	Psittacidae	
1 <b>\</b> / A		LL: Gray Parrot, Psittacus erithacus	Psittacidae	
	Margin	LR: Rose-ringed Parakeet, <i>Psittacula krameri</i>	Psittaculidae	
		ML: Brown-necked Parrot, <i>Poicephalus robustus</i>	Psittacidae	
			rsittacidae	
	1.0	<b>2015 June 15</b> (Owls) (MS/4 & SS/1)	T 1	A
a		African Grass-Owl, Tyto capensis	Tytonidae	
b		Barn Owl, Tyto alba	Tytonidae	
c		Eurasian Eagle-Owl, <i>Bubo bubo</i>	Strigidae	
d		Northern White-faced Owl, <i>Ptilopsis leucotis</i>	Strigidae	
	-	LL: Barn Owl, Tyto alba	Tytonidae	
N/A		Barn Owl, Tyto alba	Tytonidae	
	Margin	Bot: Eurasian Eagle-Owl, Bubo bubo	Strigidae	
		UR: Sokoke Scops-Owl, Otus ireneae	Strigidae	
		UL: Northern White-faced Owl, Ptilopsis leucotis	Strigidae	
		<b>2015 June 15</b> (Raptors) (MS/4 & SS/1)		A
a	46m	White-headed Vulture, Trigonoceps occipitalis	Accipitridae	
b	46m	Bateleur, Terathopius ecaudatus	Accipitridae	
c	46m	Egyptian Vulture, Neophron percnopterus	Accipitridae	
d	46m	Jackal Buzzard, Buteo rufofuscus	Accipitridae	
	Margin	LR: Bateleur, Terathopius ecaudatus	Accipitridae	
		LL: Lappet-faced Vulture, Torgos tracheliotus	Accipitridae	
		(Cap: Torgos tracheliotos)		
N/A	SS 175m	African Fish-Eagle, Haliaeetus vocifer (also in Bot margin)	Accipitridae	
		<b>2015 June 15</b> (Bee-eaters) (MS/4 & SS/1)		A
a	46m	Little Bee-eater, Merops pusillus	Meropidae	
b		Blue-breasted Bee-eater, Merops variegatus	Meropidae	
c		Green Bee-eater, Merops orientalis	Meropidae	
d		Northern Carmine Bee-eater, Merops nubicus	Meropidae	
u		LL: European Bee-eater, Merops apiaster	Meropidae	
N/A		Red-throated Bee-eater, Merops bulocki	Meropidae	
1 1// 11		LL: Blue-breasted Bee-eater, Merops variegatus	Meropidae	
	Margin	LR: Northern Carmine Bee-eater, Merops nubicus	Meropidae	
		•	Weropidae	
		2015 August 15 (s-o-s) (MS/4)		A
b	66m	North Island Brown Kiwi, Apteryx mantelli (Laos Sc#978)	Apterygidae	
		<b>2015 October 15</b> (Jacanas) (MS/4 & SS/1)		A
a	66m	Pheasant-tailed Jacana, Hydrophasianus chirurgus	Jacanidae	
b	66m	Comb-crested Jacana, Irediparra gallinacea	Jacanidae	
c		African Jacana, Actophilornis africanus	Jacanidae	
d		Wattled Jacana, Jacana jacana	Jacanidae	
N/A		· · · · · · · · · · · · · · · · · · ·	Jacanidae	
		<u>.</u>	Jacanidae	Vol. 65(2)
		LL: Northern Jacana, Jacana spinosa	Jacanidae	· 55 (=)
		•		4
		2015 October 15 (Cormorants) (MS/4 & SS	·	A
a 1-		Red-faced Cormorant, Phalacrocorax urile	Phalacrocoracida	
b		Little Cormorant, Phalacrocorax niger	Phalacrocoracida	
С	66m	Great Cormorant, Phalacrocorax carbo	Phalacrocoracida	e

MOZA	MBIQUE (	(continued)		
d	-	Red-legged Cormorant, Phalacrocorax gaimardi	Phalacrocoracidae	
N/A		Double-crested Cormorant, Phalacrocorax auritus	Phalacrocoracidae	
	Margin	UR: Great Cormorant, Phalacrocorax carbo	Phalacrocoracidae	
		UL: Double-crested Cormorant, Phalacrocorax auritus	Phalacrocoracidae	
		LL: Red-legged Cormorant, Phalacrocorax gaimardi	Phalacrocoracidae	
		Bot: Little Cormorant, <i>Phalacrocorax niger</i>	Phalacrocoracidae	
		2015 October 15 (Albatrosses) (MS/4 & SS	S/1)	A
a	66m	Short-tailed Albatross, <i>Phoebastria albatrus</i>	Diomedeidae	1.
b	66m	Black-billed Albatross, <i>Thalassarche melanophris</i>	Diomedeidae	
c		Royal Albatross, Diomedea epomophora	Diomedeidae	
d		Black-footed Albatross, <i>Phoebastria nigripes</i>	Diomedeidae	
N/A		Gray-headed Albatross, Thalassarche chrysostoma	Diomedeidae	
14/11		UL: Laysan Albatross, <i>Phoebastria immutabilis</i>	Diomedeidae	
	Margin	ML: Royal Albatross, Diomedea epomophora ssp. sanfordi	Diomedeidae	
		LL: Waved Albatross, <i>Phoebastria irrorata</i>	Diomedeidae	
		UR: Black-footed Albatross, <i>Phoebastria nigripes</i>	Diomedeidae	
		MR: Sooty Albatross, <i>Phoebastria fusca</i>	Diomedeidae	
			Diomedelade	
	66	2015 October 15 (Owls) (MS/4 & SS/1)	Ctui ai da a	A
a		Great Horned Owl, Bubo virginianus	Strigidae	
b		Barn Owl, Tyto alba	Tytonidae	
C		Boreal Owl, Aegolius funereus	Strigidae	
d N/A		Eastern Screech-Owl, Megascops asio	Strigidae	
N/A		Great Horned Owl, Bubo virginianus	Strigidae	
	Margin	LL: Snowy Owl, Bubo scandiacus	Strigidae	
		UR: Ural Owl, Strix uralensis	Strigidae	
		<b>2016 January 15</b> (Warblers) (MS/4 & SS/1		A
a		Blackburian Warbler, Setophaga fusca	Parulidae	
b	66m	Blackcap, Sylvia atricapilla	Sylviidae	
c		Yellow-rumped Warbler, Setophaga coronata	Parulidae	
d		Chestnut-sided Warbler, Setophaga pensylvanica	Parulidae	
	Margin	UL: Great Reed-Warbler, Acrocephalus arundinaceus	Acrocephalidae	
N/A		Prothonotary Warbler, Protonotaria citrea	Parulidae	
	Margin	Top: Yellow-rumped Warbler, Setophaga coronata	Parulidae	
		<b>2016 January 15</b> (Parrots) (MS/4 & SS/1)		$\mathbf{A}$
a	66m	Gray Parrot, Psittacus erithacus	Psittacidae	
b	66m	Sulphur-crested Cockatoo, Cacatua galerita	Cacatuidae	
c	66m	Hyacinth Macaw, Anodorhynchus hyacinthinus	Psittacidae	
d	66m	L: Red-and-green Macaw, Ara chloroptera	Psittacidae	
		R: Scarlet Macaw, Ara macao	Psittacidae	
	Margin	UR: Rainbow Lorikeet, Trichoglossus haematodus moluccanus	Psittaculidae	
N/A	SS 175m	Blue-and-yellow Macaw, Ara ararauna	Psittacidae	
	Margin	UL: Blue-and-yellow Macaw, Ara ararauna	Psittacidae	
		UR: Scarlet Macaw, Ara macao	Psittacidae	
		<b>2016 January 15</b> (Swallows) (MS/4 & SS/	1)	A
a	66m	Bank Swallow, Riparia riparia	Hirundinidae	
b		L: Banded Martin, Riparia cincta	Hirundinidae	
		R: Lesser Striped-Swallow, Cecropis abyssinica	Hirundinidae	

MOZA	MBIQUE (	(continued)		
c	_	R: Lesser Striped-Swallow, Cecropis abyssinica	Hirundinidae	
-	2 2	L: Barn Swallow, <i>Hirundo rustica</i>	Hirundinidae	
d	66m	Barn Swallow, Hirundo rustica	Hirundinidae	
u .		UL: Barn Swallow, Hirundo rustica	Hirundinidae	
N/A	•	Tree Swallow, Tachycineta bicolor	Hirundinidae	
14/11		Top: Barn Swallow, <i>Hirundo rustica</i>	Hirundinidae	
	Margin			A
0	66m	2016 January 15 (Vultures) (MS/4 & SS/1		A
a L		Eurasian Griffon, Gyps fulvus White heeked Vulture Gyrs africanus	Accipitridae	
b	66m	White-backed Vulture, Gyps africanus	Accipitridae	
C	66m	Cape Griffon, Gyps coprotheres	Accipitridae	
d N/A		Eurasian Griffon, Gyps fulvus	Accipitridae	
N/A		Eurasian Griffon, Gyps fulvus	Accipitridae	
	Margin	Top: Eurasian Griffon, Gyps fulvus	Accipitridae	
		LL: White-backed Vulture, Gyps africanus	Accipitridae	
	66	<b>2016 January 15</b> (Owls) (MS/4 & SS/1)	C( : 4	A
a 1.	66m	Tawny Owl, Strix aluco	Strigidae	
b		Barn Owl, Tyto alba	Tytonidae	
C	66m	Snowy Owl, Bubo scandiacus	Strigidae	
d		Eurasian Eagle-Owl, <i>Bubo bubo</i>	Strigidae	
	Margin	UL: Eurasian Eagle-Owl, <i>Bubo bubo</i>	Strigidae	
37/1	00 1 <b>5</b> 5	UR: Northern Saw-whet Owl, Aegolius acadicus	Strigidae	
N/A		Little Owl, Athene noctua	Strigidae	
	Margin	Top: Barn Owl, Tyto alba	Tytonidae	
		<b>2016 January 15</b> (Penguins) (MS/4 & SS/	1)	$\mathbf{A}$
				A
a	66m	Gentoo Penguin, Pygoscelis papua	Spheniscidae	A
a b	66m 66m	Gentoo Penguin, <i>Pygoscelis papua</i> King Penguin, <i>Aptenodytes patagonicus</i>	Spheniscidae Spheniscidae	A
_		Gentoo Penguin, <i>Pygoscelis papua</i> King Penguin, <i>Aptenodytes patagonicus</i> Rockhopper Penguin, <i>Eudyptes chrysocome</i>	Spheniscidae Spheniscidae Spheniscidae	A
b	66m 66m 66m	Gentoo Penguin, <i>Pygoscelis papua</i> King Penguin, <i>Aptenodytes patagonicus</i> Rockhopper Penguin, <i>Eudyptes chrysocome</i> Magellanic Penguin, <i>Spheniscus magellanicus</i>	Spheniscidae Spheniscidae	A
b c	66m 66m 66m	Gentoo Penguin, <i>Pygoscelis papua</i> King Penguin, <i>Aptenodytes patagonicus</i> Rockhopper Penguin, <i>Eudyptes chrysocome</i>	Spheniscidae Spheniscidae Spheniscidae	A
b c	66m 66m 66m Margin	Gentoo Penguin, <i>Pygoscelis papua</i> King Penguin, <i>Aptenodytes patagonicus</i> Rockhopper Penguin, <i>Eudyptes chrysocome</i> Magellanic Penguin, <i>Spheniscus magellanicus</i>	Spheniscidae Spheniscidae Spheniscidae	A
b c d	66m 66m 66m Margin SS 175m	Gentoo Penguin, Pygoscelis papua King Penguin, Aptenodytes patagonicus Rockhopper Penguin, Eudyptes chrysocome Magellanic Penguin, Spheniscus magellanicus Bkgrd: Multiple U/I penguins	Spheniscidae Spheniscidae Spheniscidae Spheniscidae	A
b c d	66m 66m 66m Margin SS 175m	Gentoo Penguin, <i>Pygoscelis papua</i> King Penguin, <i>Aptenodytes patagonicus</i> Rockhopper Penguin, <i>Eudyptes chrysocome</i> Magellanic Penguin, <i>Spheniscus magellanicus</i> Bkgrd: Multiple U/I penguins Emperor Penguin, <i>Aptenodytes forsteri</i> (Cap: A. patagonicus) Top: Adélie Penguin, <i>Pygoscelis adeliae</i>	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae	A
b c d	66m 66m 66m Margin SS 175m Margin	Gentoo Penguin, Pygoscelis papua King Penguin, Aptenodytes patagonicus Rockhopper Penguin, Eudyptes chrysocome Magellanic Penguin, Spheniscus magellanicus Bkgrd: Multiple U/I penguins Emperor Penguin, Aptenodytes forsteri (Cap: A. patagonicus)	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae	
b c d N/A	66m 66m 66m Margin SS 175m Margin	Gentoo Penguin, Pygoscelis papua King Penguin, Aptenodytes patagonicus Rockhopper Penguin, Eudyptes chrysocome Magellanic Penguin, Spheniscus magellanicus Bkgrd: Multiple U/I penguins Emperor Penguin, Aptenodytes forsteri (Cap: A. patagonicus) Top: Adélie Penguin, Pygoscelis adeliae  2016 January 15 (Desert Birds) (MS/4 & S	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae	
b c d N/A	66m 66m Margin SS 175m Margin	Gentoo Penguin, <i>Pygoscelis papua</i> King Penguin, <i>Aptenodytes patagonicus</i> Rockhopper Penguin, <i>Eudyptes chrysocome</i> Magellanic Penguin, <i>Spheniscus magellanicus</i> Bkgrd: Multiple U/I penguins Emperor Penguin, <i>Aptenodytes forsteri</i> (Cap: <i>A. patagonicus</i> ) Top: Adélie Penguin, <i>Pygoscelis adeliae</i> 2016 January 15 (Desert Birds) (MS/4 & SCUIVE-billed Thrasher, <i>Toxostoma curvirostre</i>	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Mimidae	
b c d N/A	66m 66m Margin SS 175m Margin	Gentoo Penguin, Pygoscelis papua King Penguin, Aptenodytes patagonicus Rockhopper Penguin, Eudyptes chrysocome Magellanic Penguin, Spheniscus magellanicus Bkgrd: Multiple U/I penguins Emperor Penguin, Aptenodytes forsteri (Cap: A. patagonicus) Top: Adélie Penguin, Pygoscelis adeliae  2016 January 15 (Desert Birds) (MS/4 & S. Curve-billed Thrasher, Toxostoma curvirostre House Finch, Haemorhous mexicanus Gilded Flicker, Colaptes chrysoides	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Fringillidae Picidae	A
b c d N/A	66m 66m Margin SS 175m Margin 66m 66m 66m	Gentoo Penguin, Pygoscelis papua King Penguin, Aptenodytes patagonicus Rockhopper Penguin, Eudyptes chrysocome Magellanic Penguin, Spheniscus magellanicus Bkgrd: Multiple U/I penguins Emperor Penguin, Aptenodytes forsteri (Cap: A. patagonicus) Top: Adélie Penguin, Pygoscelis adeliae  2016 January 15 (Desert Birds) (MS/4 & S Curve-billed Thrasher, Toxostoma curvirostre House Finch, Haemorhous mexicanus	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae SS/1) Mimidae Fringillidae Picidae Odontophoridae	A
b c d N/A	66m 66m Margin SS 175m Margin	Gentoo Penguin, Pygoscelis papua King Penguin, Aptenodytes patagonicus Rockhopper Penguin, Eudyptes chrysocome Magellanic Penguin, Spheniscus magellanicus Bkgrd: Multiple U/I penguins Emperor Penguin, Aptenodytes forsteri (Cap: A. patagonicus) Top: Adélie Penguin, Pygoscelis adeliae  2016 January 15 (Desert Birds) (MS/4 & S Curve-billed Thrasher, Toxostoma curvirostre House Finch, Haemorhous mexicanus Gilded Flicker, Colaptes chrysoides Gambel's Quail, Callipepla gambelii UL & UR: Cactus Wren, Campylorhynchus brunneicapillus	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Fringillidae Picidae	A
b c d N/A	66m 66m Margin SS 175m Margin 66m 66m 66m Margin SS 175m	Gentoo Penguin, Pygoscelis papua King Penguin, Aptenodytes patagonicus Rockhopper Penguin, Eudyptes chrysocome Magellanic Penguin, Spheniscus magellanicus Bkgrd: Multiple U/I penguins Emperor Penguin, Aptenodytes forsteri (Cap: A. patagonicus) Top: Adélie Penguin, Pygoscelis adeliae  2016 January 15 (Desert Birds) (MS/4 & S. Curve-billed Thrasher, Toxostoma curvirostre House Finch, Haemorhous mexicanus Gilded Flicker, Colaptes chrysoides Gambel's Quail, Callipepla gambelii UL & UR: Cactus Wren, Campylorhynchus brunneicapillus White-winged Dove, Zenaida asiatica	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae SS/1) Mimidae Fringillidae Picidae Odontophoridae Troglodytidae Columbidae	A
b c d N/A	66m 66m Margin SS 175m Margin 66m 66m 66m 66m Margin	Gentoo Penguin, Pygoscelis papua King Penguin, Aptenodytes patagonicus Rockhopper Penguin, Eudyptes chrysocome Magellanic Penguin, Spheniscus magellanicus Bkgrd: Multiple U/I penguins Emperor Penguin, Aptenodytes forsteri (Cap: A. patagonicus) Top: Adélie Penguin, Pygoscelis adeliae  2016 January 15 (Desert Birds) (MS/4 & S Curve-billed Thrasher, Toxostoma curvirostre House Finch, Haemorhous mexicanus Gilded Flicker, Colaptes chrysoides Gambel's Quail, Callipepla gambelii UL & UR: Cactus Wren, Campylorhynchus brunneicapillus	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae SS/1) Mimidae Fringillidae Picidae Odontophoridae Troglodytidae	A
b c d N/A	66m 66m Margin SS 175m Margin 66m 66m 66m Margin SS 175m	Gentoo Penguin, Pygoscelis papua King Penguin, Aptenodytes patagonicus Rockhopper Penguin, Eudyptes chrysocome Magellanic Penguin, Spheniscus magellanicus Bkgrd: Multiple U/I penguins Emperor Penguin, Aptenodytes forsteri (Cap: A. patagonicus) Top: Adélie Penguin, Pygoscelis adeliae  2016 January 15 (Desert Birds) (MS/4 & S Curve-billed Thrasher, Toxostoma curvirostre House Finch, Haemorhous mexicanus Gilded Flicker, Colaptes chrysoides Gambel's Quail, Callipepla gambelii UL & UR: Cactus Wren, Campylorhynchus brunneicapillus White-winged Dove, Zenaida asiatica Top: Cactus Wren, Campylorhynchus brunneicapillus UL: Gila Woodpecker, Melanerpes uropygialis	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae SS/1) Mimidae Fringillidae Picidae Odontophoridae Troglodytidae Columbidae Troglodytidae Picidae	A
b c d N/A a b c d N/A	66m 66m Margin SS 175m Margin 66m 66m 66m Margin SS 175m Margin	Gentoo Penguin, Pygoscelis papua King Penguin, Aptenodytes patagonicus Rockhopper Penguin, Eudyptes chrysocome Magellanic Penguin, Spheniscus magellanicus Bkgrd: Multiple U/I penguins Emperor Penguin, Aptenodytes forsteri (Cap: A. patagonicus) Top: Adélie Penguin, Pygoscelis adeliae  2016 January 15 (Desert Birds) (MS/4 & S Curve-billed Thrasher, Toxostoma curvirostre House Finch, Haemorhous mexicanus Gilded Flicker, Colaptes chrysoides Gambel's Quail, Callipepla gambelii UL & UR: Cactus Wren, Campylorhynchus brunneicapillus White-winged Dove, Zenaida asiatica Top: Cactus Wren, Campylorhynchus brunneicapillus UL: Gila Woodpecker, Melanerpes uropygialis  2016 January 15 (Cave Drawings) (MS/4)	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae SS/1) Mimidae Fringillidae Picidae Odontophoridae Troglodytidae Columbidae Troglodytidae Picidae SS/1)	<b>A</b> Vol. 65(3)
b c d N/A a b c d N/A	66m 66m Margin SS 175m Margin 66m 66m 66m Margin SS 175m Margin	Gentoo Penguin, Pygoscelis papua King Penguin, Aptenodytes patagonicus Rockhopper Penguin, Eudyptes chrysocome Magellanic Penguin, Spheniscus magellanicus Bkgrd: Multiple U/I penguins Emperor Penguin, Aptenodytes forsteri (Cap: A. patagonicus) Top: Adélie Penguin, Pygoscelis adeliae  2016 January 15 (Desert Birds) (MS/4 & S Curve-billed Thrasher, Toxostoma curvirostre House Finch, Haemorhous mexicanus Gilded Flicker, Colaptes chrysoides Gambel's Quail, Callipepla gambelii UL & UR: Cactus Wren, Campylorhynchus brunneicapillus White-winged Dove, Zenaida asiatica Top: Cactus Wren, Campylorhynchus brunneicapillus UL: Gila Woodpecker, Melanerpes uropygialis  2016 January 15 (Cave Drawings) (MS/4 †Giant Moa, Dinornis maximus	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae SS/1) Mimidae Fringillidae Picidae Odontophoridae Troglodytidae Columbidae Troglodytidae Picidae & SS/1) Dinornithidae	<b>A</b> Vol. 65(3)
b c d N/A a b c d N/A	66m 66m Margin SS 175m Margin 66m 66m 66m Margin SS 175m Margin	Gentoo Penguin, Pygoscelis papua King Penguin, Aptenodytes patagonicus Rockhopper Penguin, Eudyptes chrysocome Magellanic Penguin, Spheniscus magellanicus Bkgrd: Multiple U/I penguins Emperor Penguin, Aptenodytes forsteri (Cap: A. patagonicus) Top: Adélie Penguin, Pygoscelis adeliae  2016 January 15 (Desert Birds) (MS/4 & S Curve-billed Thrasher, Toxostoma curvirostre House Finch, Haemorhous mexicanus Gilded Flicker, Colaptes chrysoides Gambel's Quail, Callipepla gambelii UL & UR: Cactus Wren, Campylorhynchus brunneicapillus White-winged Dove, Zenaida asiatica Top: Cactus Wren, Campylorhynchus brunneicapillus UL: Gila Woodpecker, Melanerpes uropygialis  2016 January 15 (Cave Drawings) (MS/4 †Giant Moa, Dinornis maximus †Great Auk, Pinguinus impennis	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae SS/1) Mimidae Fringillidae Picidae Odontophoridae Troglodytidae Columbidae Troglodytidae Picidae & SS/1) Dinornithidae Alcidae	<b>A</b> Vol. 65(3)
b c d N/A a b c d N/A	66m 66m Margin SS 175m Margin 66m 66m 66m Margin SS 175m Margin	Gentoo Penguin, Pygoscelis papua King Penguin, Aptenodytes patagonicus Rockhopper Penguin, Eudyptes chrysocome Magellanic Penguin, Spheniscus magellanicus Bkgrd: Multiple U/I penguins Emperor Penguin, Aptenodytes forsteri (Cap: A. patagonicus) Top: Adélie Penguin, Pygoscelis adeliae  2016 January 15 (Desert Birds) (MS/4 & S Curve-billed Thrasher, Toxostoma curvirostre House Finch, Haemorhous mexicanus Gilded Flicker, Colaptes chrysoides Gambel's Quail, Callipepla gambelii UL & UR: Cactus Wren, Campylorhynchus brunneicapillus White-winged Dove, Zenaida asiatica Top: Cactus Wren, Campylorhynchus brunneicapillus UL: Gila Woodpecker, Melanerpes uropygialis  2016 January 15 (Cave Drawings) (MS/4 †Giant Moa, Dinornis maximus †Great Auk, Pinguinus impennis †Dodo, Raphus cucullatus	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae SS/1) Mimidae Fringillidae Picidae Odontophoridae Troglodytidae Columbidae Troglodytidae Picidae & SS/1) Dinornithidae Alcidae Columbidae	<b>A</b> Vol. 65(3) <b>A</b>
b c d N/A a b c d N/A  N/A	66m 66m Margin SS 175m Margin 66m 66m 66m Margin SS 175m Margin	Gentoo Penguin, Pygoscelis papua King Penguin, Aptenodytes patagonicus Rockhopper Penguin, Eudyptes chrysocome Magellanic Penguin, Spheniscus magellanicus Bkgrd: Multiple U/I penguins Emperor Penguin, Aptenodytes forsteri (Cap: A. patagonicus) Top: Adélie Penguin, Pygoscelis adeliae  2016 January 15 (Desert Birds) (MS/4 & S. Curve-billed Thrasher, Toxostoma curvirostre House Finch, Haemorhous mexicanus Gilded Flicker, Colaptes chrysoides Gambel's Quail, Callipepla gambelii UL & UR: Cactus Wren, Campylorhynchus brunneicapillus White-winged Dove, Zenaida asiatica Top: Cactus Wren, Campylorhynchus brunneicapillus UL: Gila Woodpecker, Melanerpes uropygialis  2016 January 15 (Cave Drawings) (MS/4 †Giant Moa, Dinornis maximus †Great Auk, Pinguinus impennis †Dodo, Raphus cucullatus  2016 May 10 (Year of Pulses) (MS/4 & SS	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae SS/1) Mimidae Fringillidae Picidae Odontophoridae Troglodytidae Columbidae Troglodytidae Picidae & SS/1) Dinornithidae Alcidae Columbidae	<b>A</b> Vol. 65(3)
b c d N/A a b c d N/A	66m 66m Margin SS 175m Margin 66m 66m 66m Margin SS 175m Margin	Gentoo Penguin, Pygoscelis papua King Penguin, Aptenodytes patagonicus Rockhopper Penguin, Eudyptes chrysocome Magellanic Penguin, Spheniscus magellanicus Bkgrd: Multiple U/I penguins Emperor Penguin, Aptenodytes forsteri (Cap: A. patagonicus) Top: Adélie Penguin, Pygoscelis adeliae  2016 January 15 (Desert Birds) (MS/4 & S Curve-billed Thrasher, Toxostoma curvirostre House Finch, Haemorhous mexicanus Gilded Flicker, Colaptes chrysoides Gambel's Quail, Callipepla gambelii UL & UR: Cactus Wren, Campylorhynchus brunneicapillus White-winged Dove, Zenaida asiatica Top: Cactus Wren, Campylorhynchus brunneicapillus UL: Gila Woodpecker, Melanerpes uropygialis  2016 January 15 (Cave Drawings) (MS/4 †Giant Moa, Dinornis maximus †Great Auk, Pinguinus impennis †Dodo, Raphus cucullatus	Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae Spheniscidae SS/1) Mimidae Fringillidae Picidae Odontophoridae Troglodytidae Columbidae Troglodytidae Picidae & SS/1) Dinornithidae Alcidae Columbidae	<b>A</b> Vol. 65(3)

MOZ	AMBIQUE (	(continued) <b>2016 May 10</b> (Waterbirds) (MS/4 & SS/1)		A
N/A	66m	Top: Greater Flamingo, Phoenicopterus roseus	Phoenicopteridae	
NT/A	(6	Bot: Roseate Spoonbill, <i>Platalea ajaja</i>	Threskiornithidae	
N/A N/A		Belted Kingfisher, <i>Ceryle alcyon</i> Great Blue Heron, <i>Ardea herodias</i>	Alcedinidae Ardeidae	
N/A		Horned Grebe, <i>Podiceps auritus</i>	Podicipedidae	
1 1/1 1		L: Sandhill Crane, <i>Grus canadensis</i>	Gruidae	
N/A	_	Long-billed Curlew, Numenius americanus	Scolopacidae	
	Margin	Ctr: Mallard, Anas platyrhynchos	Anatidae	
		LR: Saddle-billed Stork, Ephippiorhynchus senegalensis	Ciconiidae	
		LL: Pacific Loon, Gavia pacifica	Gaviidae	
		ML: Black-crowned Night-Heron, Nycticorax nycticorax	Ardeidae	
	CALEDON	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		$\mathbf{A}$
1076f	(75fr)	Kagu, Rhynochetos jubatus (like Sc#1076b, dated "2016")	Rhynochetidae	
1076g		Bklt/10 (Sc#1076f) (die cut 6¾ vert)		
		<b>2016 May 12</b> (Marriage) (Single)		В
1208	75fr	Horned Parakeet, <i>Eunymphicus cornutus</i> (with wedding bands)	Psittaculidae	
		2016 June 10 (Natural Park of the Coral Se		C
1212	110fr	Roseate Tern, Sterna dougallii	Laridae	
	A NEW GU		MS/4, & SS/1)	$\mathbf{A}$
All sta	mps caption	ed Rhyticeros plicatus.		
1817	1.45k	Blyth's Hornbill, Aceros plicatus (org-pink bkgrd)	Bucerotidae	
1818		Same species (lilac bkgrd)		
1819		Same species (It green bkgrd)		
1820		Same species (gray bkgrd)		
1821a		Same species (pink bkgrd)		
1821b		Same species (pink bkgrd)		
1821c 1821d		Same species (pink bkgrd) Same species (pink bkgrd)		
1822		Blyth's Hornbill, Aceros plicatus	Bucerotidae	
1022		L & R: Same species	Duccionac	
DITC	· ·	•		
	AIRN ISLA	NDS 2016 July 6 (WWF) (Strip/4 & SS/8) op row highest to lowest, bottom row lowest to highest.		A
			D 11 ''1	
818a		Phoenix Petrel, <i>Pterodroma alba</i> (one in nest)	Procellariidae	
818b 818c	\$1 \$2.10	Same species (two in nest) Same species (two in flight)		
818d	\$2.10			
818e	Ψ5	SS/8 (2ea Sc#818a–d)		
	HOMAS & 1	PRINCE ISLANDS 2015 (Biodiversity) (2ea MS/9)		A
d		Principe Golden-Weaver, <i>Ploceus princes</i>	Ploceidae	A
g	1000d	•	Psittacidae	
b		African Green-Pigeon, Treron calvus	Columbidae	
		<b>2016 January 26</b> (11 September 2001 Men	norial) (MS/4)	В
c	19000d	Bald Eagle, <i>Haliaeetus leucocephalus</i> (with US flag)	Accipitridae	D
		<b>2016 March 30</b> (Year of Pulses) (SS/1)		В
N/A	SS 96000d	Lilac-breasted Roller, <i>Coracias caudatus</i>	Coraciidae	D
- 1/ A B	22 70000 <b>u</b>	Transita Italia, Solutions Community		

ST. T	HOMAS & 1	<b>PRINCE</b> (cont) <b>2016 March 30</b> (Owls) (MS/4 & SS/1)		A
a		Indian Eagle-Owl, Bubo benghalensis	Strigidae	
b		Boreal Owl, Aegolius funereus	Strigidae	
c		African Barred Owlet, Glaucidium capense	Strigidae	
d		Brown Wood-Owl, Strix leptogrammica	Strigidae	
	Margin		· ·	
N/A	SS 96000d	Bot: Little Owl, Athene noctua	Strigidae	
		Top: Barn Owl, Tyto alba	Tytonidae	
	Margin	U/I owls		
		<b>2016 March 30</b> (PhilaTaipei 2016) (MS/4)		$\mathbf{A}$
b	31000d	Formosan Magpie, Urocissa caerulea (also in LR margin)	Corvidae	
		<b>2016 July 20</b> (PhilaTaipei 2016–Genghis K	han) (MS/4)	В
c	19000d	Gyrfalcon, Falco rusticolus	Falconidae	ь
C	170000	·	1 dicomdae	
	240001	<b>2016 July 20</b> (Owls) (MS/4 & SS/1)	a	A
a		Ural Owl, Strix uralensis	Strigidae	
b		Boreal Owl, Aegolius funereus	Strigidae	
С		Snowy Owl, Bubo scandiacus	Strigidae	
d		European Scops-Owl, Otus scops	Strigidae	
		R: Barn Owl, Tyto alba	Tytonidae	
N/A		Great Gray Owl, Strix nebulosa	Strigidae	
	Margin	LL & R: Eurasian Eagle-Owl, <i>Bubo bubo</i>	Strigidae	
		<b>2016 July 20</b> (Asian Fauna) (MS/4 & SS/1)		$\mathbf{A}$
a	31000d	Glossy Ibis, Plegadis falcinellus	Threskiornithidae	
b		Indian Roller, Coracias benghalensis	Coraciidae	
c	31000d	Collared Kingfisher, Todiramphus chloris	Alcedinidae	
d	31000d	Egyptian Vulture, Neophron percnopterus	Accipitridae	
	Margin	R: Gray Heron, Ardea cinerea	Ardeidae	
N/A	SS 96000d	Chinese Pond Heron, Ardeola bacchus	Ardeidae	
	Margin	LR: Great White Pelican, Pelecanus onocrotalus	Pelecanidae	
		UR: Rainbow Lorikeet, Trichoglossus haematodus moluccanus	Psittaculidae	
		LL: Tibetan Snowcock, Tetraogallus tibetanus	Phasianidae	
		<b>2016 July 20</b> (American Fauna) (MS/4 & S	S/1)	A
a	31000d	American Kestrel, Falco sparverius	Falconidae	1-
b		Common Eider, Somateria mollissima	Anatidae	
c		Wild Turkey, Meleagris gallopavo	Phasianidae	
d		American Flamingo, <i>Phoenicopterus ruber</i>	Phoenicopteridae	
		UR: Turkey Vulture, Cathartes aura	Cathartidae	
	C	LR: American Flamingo, Phoenicopterus ruber	Phoenicopteridae	
N/A	SS 96000d	Magnificent Frigatebird, Fregata magnificens	Fregatidae	
	Margin	UR: Turkey Vulture, Cathartes aura	Cathartidae	
		LR: American Flamingo, Phoenicopterus ruber	Phoenicopteridae	
		<b>2016 July 20</b> (African Fauna) (MS/4 & SS/	- 1)	A
9	31000d	Great Cormorant, <i>Phalacrocorax carbo</i>	Phalacrocoracidae	A
a b		Arctic Loon, Gavia arctica	Gaviidae	
c		Black-browed Albatross, <i>Thalassarche melanophris</i>	Diomedeidae	
d		Dalmatian Pelican, <i>Pelecanus crispus</i>	Pelecanidae	
u		UR: Gray Heron, Ardea cinerea	Ardeidae	
N/A	SS 96000d		Casuariidae	
		LL & R: Same species		

ST. T	HOMAS & I	PRINCE (cont) 2016 July 20 (Antarctic Fauna) (MS/4 & SS	5/1)	A
a	31000d	Arctic Loon, Gavia arctica	Gaviidae	
b	31000d	Razorbill, Alca torda	Alcidae	
c	31000d	Atlantic Puffin, Fratercula arctica	Alcidae	
d	31000d	King Eider, Somateria spectabilis	Anatidae	
	Margin	UR & R: Gyrfalcon, Falco rusticolus	Falconidae	
N/A	SS 96000d	Northern Pintail, Anas acuta	Anatidae	
	Margin	LL & R: Snowy Owl, Bubo scandiacus	Strigidae	
		<b>2016 September 12</b> (Bee-eaters) (MS/4 & S	SS/1)	A
a	31000d	Southern Carmine Bee-eater, Merops nubicoides	Meropidae	
b	31000d	1 1 1	Meropidae	
c		Same species (one in flight)		
d		Same species (two on branch)		
		UL: Rainbow Bee-eater, Merops ornatus	Meropidae	
N/A		Rainbow Bee-eater, Merops ornatus	Meropidae	
	Margin	UL & LL: Same species		
		2016 September 12 (PhilaTaipei 2016–Dala		<b>A</b>
c		Formosan Magpie, Urocissa caerulea	Corvidae	
		Bot: Same species		
N/A		Formosan Magpie, Urocissa caerulea	Corvidae	
	Margin	Bot: Same species		
		<b>2016 September 12</b> (Raptors) (MS/4 & SS/		A
a		Australian Kite, Elanus axillaries	•	. 65(4)
b		Bonelli's Eagle, Aquila fasciatus	Accipitridae	_
c		Gray Hawk, Buteo plagiatus	Accipitridae	new*
d		Egyptian Vulture, Neophron percnopterus	Accipitridae	
	Margin	UL: Osprey, Pandion haliaetus	Pandionidae	
		UR: Black Baza, Aviceda leuphotes	Accipitridae	
N/A	SS 96000d	Osprey, Pandion haliaetus	Pandionidae	
	Margin	UR: Brahminy Kite, Haliastur indus	Accipitridae	
		UL: Short-toed Eagle, Circaetus gallicus	Accipitridae	
*This	species previ	ously appeared on various Conservation issues, but this is the first	t time on a postal issue.	
		<b>2016 September 12</b> (s-o-s) (MS/4)		C
c	31000d	UR: Oriental Turtle-Dove, Streptopelia orientalis (Japan #1480)	Columbidae	
		ML: Indian Peafowl, <i>Pavo cristatus</i> (Hungary Sc#2471)	Phasianidae	
		LR: Eurasian Jay, Garrulus glandarius (U/I stamp)	Corvidae	
		2016 September 12 (Dinosaurs) (MS/4)		A
b	31000d	Confuciusornis, <i>Confuciusornis</i> sp.	†Confuciusornithidae	A
U	310000		Confuciasormandae	_
N/A	500000 22	<b>2016 September 12</b> (Mushrooms) (SS/1) European Shag, <i>Phalacrocorax aristotelis</i>	Phalacrocoracidae	В
SERE		<b>2016 April 27</b> (Fauna) (Horiz Strip/4 + labe		$\mathbf{A}$
740b	46d	Imperial Eagle, Aquila heliaca	Accipitridae	
740c	50d	Eurasian Griffon, Gyps fulvus	Accipitridae	
SIER	RA LEONE	2016 January 28 (Hippopotamus) (MS/4)		$\mathbf{C}$
a	6000le	Yellow-billed Oxpecker, <i>Buphagus africanus</i> (on hippo back)	Buphagidae	Č
	60001	2016 March 25 (Marine Life: Terns) (MS/4	·	A
a 1.	6000le	Whiskered Tern, Chlidonias hybrida	Laridae	
b	6000le	Black Tern, Chlidonias niger	Laridae	

SIER	RRA LEONE	(continued)		
c		Sooty Tern, Onychoprion fuscatus	Laridae	
d		Common Tern, Sterna hirundo	Laridae	
u		Bot: Sooty Tern, Onychoprion fuscatus	Laridae	
	Margin	LL: Common Tern, Sterna hirundo	Laridae	
N/A	SS 24000le	L: Greater Crested Tern, <i>Thalasseus bergii</i>	Laridae	
14/11	55 24000ic	R: Sooty Tern, Onychoprion fuscatus	Laridae	
	Margin	Multiple U/I species	Laridae	
	Margin		FG (4.0. GG (4))	
		2016 March 25 (Marine Life: Penguins) (M		A
a		Fiordland Penguin, Eudyptes pachyrhynchus	Spheniscidae	
b		King Penguin, Aptenodytes patagonicus	Spheniscidae	
c		Adelie Penguin, Pygoscelis adeliae	Spheniscidae	
d		Jackass Penguin, Spheniscus demersus	Spheniscidae	
		LL: U/I penguin species	~	
N/A	SS 24000le	L: Fiordland Penguin, Eudyptes pachyrhynchus	Spheniscidae	
		R: Adelie Penguin, Pygoscelis adeliae	Spheniscidae	
	Margin	L: King Penguin, Aptenodytes patagonicus	Spheniscidae	
		LR: U/I penguin species		
		2016 March 25 (Marine Life: Kingfishers)	(MS/4 & SS/1)	$\mathbf{A}$
a	6000le	Common Kingfisher, Alcedo atthis	Alcedinidae	
b	6000le	Gray-headed Kingfisher, Halcyon leucocephala	Alcedinidae	
c		White-throated Kingfisher, Halcyon smyrnensis	Alcedinidae	
d	6000le	Rufous-backed Dwarf-Kingfisher, Ceyx rufidorsa	Alcedinidae	
N/A	SS 24000le	Yellow-billed Kingfisher, Syma torotoro	Alcedinidae	
	Margin	L: Belted Kingfisher, Megaceryle alcyon	Alcedinidae	
		Ctr: Pied Kingfisher, Ceryle rudis	Alcedinidae	
		2016 March 25 (Marine Life: Waterbirds)	(MS/4 & SS/1)	A
a	6000le	Great Crested Grebe, <i>Podiceps cristatus</i>	Podicipedidae	• •
b		Swan Goose, Anser cygnoides	Anatidae	
c		Pacific Loon, Gavia pacifica	Gaviidae	
d		L: White-tufted Grebe, <i>Rollandia rolland</i>	Podicipedidae	
	00001	R: Horned Grebe, <i>Podiceps auritus</i>	Podicipedidae	
	Margin	Top: Cape Barren Goose, Cereopsis novaehollandiae	Anatidae	
N/A		Baikal Teal, Anas formosa	Anatidae	
		ML: Eurasian Wigeon, Anas penelope	Anatidae	
		UR & Bot: Sacred Ibis, Threskiornis aethiopicus	Threskiornithidae	
		UL & MR: Roseate Spoonbill, <i>Platalea ajaja</i>	Threskiornithidae	
		LR: Black-crowned Night-Heron, Nycticorax nycticorax	Ardeidae	
		2016 April 29 (500th anniv. Conrad Gessne	or) (MS/4)	В
b	600010	Ostrich, Struthio camelus	Struthionidae	D
			Tytonidae	
c	000016	Barn Owl, Tyto alba	i ytomuae	
		2016 May 27 (National Parks of Africa) (M		A
These	e depict fauna	in these parks on an outline of the African continent with the nam	ne of the park or reserve.	
Chob	e National Pa	ark–Botswana (MS/4 & SS/1)		
d		L: Marabou Stork, <i>Leptoptilos crumenifer</i>	Ciconiidae	
	<del>-</del>	R: Pied Kingfisher, <i>Ceryle rudis</i>	Alcedinidae	
N/A	SS 24000le	Southern Carmine Bee-eater, <i>Merops nubicoides</i>	Meropidae	
		MR: Southern Carmine Bee-eater, Merops nubicoides	Meropidae	
	Ü	Bot: Helmeted Guineafowl, Numida meleagris	Phasianidae	

### SIERRA LEONE (continued)

SIERRA LEUNE	(continued)		
	serve in Okovango Delta–Botswana (MS/4) Cape Griffon, <i>Gyps coprotheres</i>	Accipitridae	
	Park–Kenya (MS/4) Yellow-billed Stork, <i>Mycteria ibis</i>	Ciconiidae	
a 6000le N/A SS 24000le	Ark–Namibia (MS/4 & SS/1) Ostrich, Struthio camelus Lesser Flamingo, Phoenicopterus minor UR: Rufus-crowned Roller, Coracias naevius	Struthionidae Phoenicopteridae Coraciidae	
	<b>Park–Namibia</b> (MS/4) African Skimmer, <i>Rynchops flavirostris</i>	Laridae	
a 6000le	ational Park–Sierra Leone (MS/4) Ballman's Malimbe, Malimbus ballmanni Rufous Fishing-Owl, Scotopelia ussheri	Ploceidae Vol. 65(3 Strigidae	)
	Tational Park–Sierra Leone (MS/4) Blue-bellied Roller, Coracias cyanogaster	Coraciidae	
	insula National Park–Sierra Leone (SS/1) White-necked Rockfowl, Picathartes gymnocephalus	Picathartidae	
N/A SS 24000le	Ark–Tanzania (SS/1) Secretary-bird, Sagittarius serpentarius UR & Bot: Yellow-collared Lovebird, Agapornis personatus Ctr: Collared Sunbird, Hedydipna collaris	Sagittariidae Psittaculidae Nectariniidae	
b 6000le N/A SS 24000le	rve–Tanzania (MS/4 & SS/1) African Fish-Eagle, <i>Haliaeetus vocifer</i> African Spoonbill, <i>Platalea alba</i> Ctr: White-fronted Bee-eater, <i>Merops bullockoides</i>	Accipitridae Threskiornithidae Meropidae	
a 6000le c 6000le N/A SS 24000le	ble National Park—Uganda (MS/4 & SS/1) Handsome Francolin, Francolinus nobilis Shoebill, Balaeniceps rex African Emerald Cuckoo, Chrysococcyx cupreus UR: Jackson's Hornbill, Tockus jacksoni LR: Red-headed Bluebill, Spermophaga ruficapilla	Phasianidae Vol. 65(4) Balaenicipitidae Cuculidae Bucerotidae new Estrildidae	
_	ational Park–Zambia (MS/4) Hooded Vulture, <i>Necrosyrtes monachus</i>	Accipitridae	
	nal Park–Zimbabwe (MS/4) Cardinal Woodpecker, <i>Dendropicos fuscescens</i>	Picidae	
b 6000le c 6000le d 6000le N/A SS 24000le	2016 August 29 (Birds of Prey) (MS/4 & S Yellow-headed Caracara, Milvago chimachima Bald Eagle, Haliaeetus leucocephalus Osprey, Pandion haliaetus Eurasian Griffon, Gyps fulvus African Goshawk, Accipiter tachiro UL: Eurasian Griffon, Gyps fulvus UR: Osprey, Pandion haliaetus Bot: Golden Eagle, Aquila chrysaetos	S/1) Falconidae Accipitridae Pandionidae Accipitridae Accipitridae Accipitridae Accipitridae Accipitridae Accipitridae Accipitridae Accipitridae	A

SIER	RA LEONE	(continued) <b>2016 August 29</b> (Owls) (MS/4 & SS/1)		A
a	6000le	Great Gray Owl, Strix nebulosa	Strigidae	
b	6000le	Snowy Owl, Bubo scandiacus	Strigidae	
c	6000le	Eurasian Eagle-Owl, Bubo bubo	Strigidae	
d	6000le	Short-eared Owl, Asio flammeus	Strigidae	
N/A	SS 24000le	Barn Owl, Tyto alba	Tytonidae	
	Margin	UL: Eurasian Eagle-Owl, Bubo bubo	Strigidae	
		UR: Great Gray Owl, Strix nebulosa	Strigidae	
		Bot: Spotted Owlet, Athene brama	Strigidae	
		2016 August 29 (Extinct Animals) (MS/4)		A
d	6000le	Dodo, Raphus cucullatus	Columbidae	
N/A		UR: Dodo, Raphus cucullatus	Columbidae	
		2016 August 29 (Hummingbirds) (MS/4 &	SS/1)	A
a	6000le	Rufous-tailed Hummingbird, Amazilia tzacatl	Trochilidae	
b		Anna's Hummingbird, Calypte anna	Trochilidae	
c		Ruby-throated Hummingbird, Archilochus colubris	Trochilidae	
d		Booted Racket-tail, Ocreatus underwoodii	Trochilidae	
N/A		Booted Racket-tail, Ocreatus underwoodii	Trochilidae	
		UR: Anna's Hummingbird, Calypte anna	Trochilidae	
	8	UL: Booted Racket-tail, Ocreatus underwoodii	Trochilidae	
		Bot: Rufous Hummingbird, Selasphorus rufus	Trochilidae	
		<b>2016 August 29</b> (Sunbirds) (MS/4 & SS/1)		A
a	6000le	Purple-throated Sunbird, Leptocoma sperata	Nectariniidae	1.
b		Variable Sunbird, Cinnyris venustus	Nectariniidae	
c		Long-billed Sunbird, Cinnyris lotenius	Nectariniidae	new
d		The state of the s	Nectariniidae	
N/A	SS 24000le	Purple-throated Sunbird, <i>Leptocoma sperata</i>	Nectariniidae	
	Margin	UL: Greater Double-collared Sunbird, Cinnyris afer	Nectariniidae	
		UR: Purple-throated Sunbird, Leptocoma sperata	Nectariniidae	
		Bot: Green-tailed Sunbird, Aethopyga nipalensis	Nectariniidae	
		<b>2016 August 29</b> (Parrots) (MS/4 & SS/1)		A
a	60001e	Sun Parakeet, Aratinga solstitialis	Psittacidae	1.
b		Budgerigar, Melopsittacus undulates	Psittaculidae	
c		Kea, Nestor notabilis	Psittaculidae	
s		Blue-and-yellow Macaw, Ara ararauna	Psittacidae	
N/A	SS 24000le	White Cockatoo, Cacatua alba	Cacatuidae	new
1 1/1 1		UR: Sun Parakeet, Aratinga solstitialis	Psittacidae	110 11
	1,141,8111	UL: Budgerigar, Melopsittacus undulates	Psittaculidae	
		Bot: Blue-and-yellow Macaw, Ara ararauna	Psittacidae	
SWE	DEN	<b>2016 August 25</b> (Birds) (Set/2) (coil) (s/a)		A
2780		Common Redpoll, Acanthis flammea	Fringillidae	F <b>1</b>
2781		Eurasian Hoopoe, <i>Upupa epops</i>	Upupidae	
		* * * * *	Chahiano	
	ZANIA	2011 September 8 (Surcharges) (Set/2)	NT / ' '' 1	A
2627		Scarlet-chested Sunbird, <i>Chalcomitra senegalensis</i> (on Sc#611)	Nectariniidae	
26271	3 900sh	Afep Pigeon, Columba unicinta (on Sc#611B)	Columbidae	

### **TOGO**

In *Biophilately* Vol. 65(4), I gave a look at the stamp issuing policy of Togo that I considered obscene and outrageous for a small nation of just over five million in population. I also stated that I have ended the collecting of Togo stamps featuring birds because of their greedy looting of the pockets of collectors. I know that many collectors like to have completeness as far as their hobby, and that is their right and prerogative as a collector.

Listed below is more insanity by Togo. On 16 November 2016, several MS/4 se-tenant stamps and SS/1 were released under the theme of "National Fauna." Each of the stamps feature birds or other fauna, and each has the country name and country flag featured in the lower left corner of the stamp. This list includes the country flag for those stamps featuring birds.

		<b>2016 November 16</b> (TG16401a&b)		$\mathbf{A}$
a	900fr	Oriental Magpie-Robin, Copsychus saularis	Muscicapidae	Bangladesh
d		White Wagtail, Motacilla alba	Motacillidae	Latvia
N/A		Rufous Hornero, Furnarius rufus	Furnariidae	Argentina
	Margin	LR & Bot: Same species		
		<b>2016 November 16</b> (TG16402a)		$\mathbf{A}$
a		Cuban Trogon, Priotelus temnurus	Trogonidae	Cuba
d	900fr	Southern Lapwing, Vanellus chilensis	Charadriidae	Uruguay
		<b>2016 November 16</b> (TG16403a&b)		$\mathbf{A}$
a	900fr	Andean Condor, Vultur gryphus	Cathartidae	Columbia
b	900fr	Gyrfalcon, Falco rusticolus	Falconidae	Iceland
d		Formosan Magpie, Urocissa caerulea	Corvidae	Taiwan
N/A		Eurasian Kestrel, Falco tinnunculus	Falconidae	Belgium
	Margin	LR & Bot: Same species		
		<b>2016 November 16</b> (TG16404a&b)		$\mathbf{A}$
c	900fr	White Stork, Ciconia ciconia	Ciconiidae	Lithuania
N/A		Rufous-bellied Thrush, Turdus rufiventris	Turdidae	Brazil
	Margin	UR & LR: Same species		
		<b>2016 November 16</b> (TG16405a)		<b>A</b>
		<b>2010</b> November 10 (1010403a)		$\mathbf{A}$
b	900fr	Chukar, Alectoris chukar	Phasianidae	Iraq
b c	900fr 900fr	Chukar, Alectoris chukar	Accipitridae	
	900fr	Chukar, Alectoris chukar		Iraq
c	900fr	Chukar, <i>Alectoris chukar</i> Golden Eagle, <i>Aquila chrysaetos</i>	Accipitridae	Iraq Egypt
c	900fr 900fr	Chukar, <i>Alectoris chukar</i> Golden Eagle, <i>Aquila chrysaetos</i> Raggiana Bird-of-Paradise, <i>Paradisaea raggiana</i>	Accipitridae	Iraq Egypt Papua N. G.
c d	900fr 900fr 900fr	Chukar, <i>Alectoris chukar</i> Golden Eagle, <i>Aquila chrysaetos</i> Raggiana Bird-of-Paradise, <i>Paradisaea raggiana</i> 2016 November 16 (TG16406a&b)	Accipitridae Paradisaeidae	Iraq Egypt Papua N. G. <b>A</b> Estonia
c d b c d	900fr 900fr 900fr 900fr 900fr	Chukar, Alectoris chukar Golden Eagle, Aquila chrysaetos Raggiana Bird-of-Paradise, Paradisaea raggiana  2016 November 16 (TG16406a&b) Wire-tailed Swallow, Hirundo smithii Cuban Parrot, Amazona leucocephala Black-tailed Godwit, Limosa limosa	Accipitridae Paradisaeidae Hirundinidae Psittacidae Ca Scolopacidae	Iraq Egypt Papua N. G. A Estonia ayman Islands Netherlands
c d b	900fr 900fr 900fr 900fr 900fr SS 3300fr	Chukar, Alectoris chukar Golden Eagle, Aquila chrysaetos Raggiana Bird-of-Paradise, Paradisaea raggiana  2016 November 16 (TG16406a&b) Wire-tailed Swallow, Hirundo smithii Cuban Parrot, Amazona leucocephala Black-tailed Godwit, Limosa limosa Red-crowned Crane, Grus japonensis	Accipitridae Paradisaeidae Hirundinidae Psittacidae Ca	Iraq Egypt Papua N. G. A Estonia ayman Islands
c d b c d	900fr 900fr 900fr 900fr 900fr SS 3300fr	Chukar, Alectoris chukar Golden Eagle, Aquila chrysaetos Raggiana Bird-of-Paradise, Paradisaea raggiana  2016 November 16 (TG16406a&b) Wire-tailed Swallow, Hirundo smithii Cuban Parrot, Amazona leucocephala Black-tailed Godwit, Limosa limosa Red-crowned Crane, Grus japonensis R: Same species	Accipitridae Paradisaeidae Hirundinidae Psittacidae Ca Scolopacidae Gruidae	Iraq Egypt Papua N. G. A Estonia ayman Islands Netherlands
c d b c d	900fr 900fr 900fr 900fr 900fr SS 3300fr	Chukar, Alectoris chukar Golden Eagle, Aquila chrysaetos Raggiana Bird-of-Paradise, Paradisaea raggiana  2016 November 16 (TG16406a&b) Wire-tailed Swallow, Hirundo smithii Cuban Parrot, Amazona leucocephala Black-tailed Godwit, Limosa limosa Red-crowned Crane, Grus japonensis	Accipitridae Paradisaeidae Hirundinidae Psittacidae Ca Scolopacidae	Iraq Egypt Papua N. G. A Estonia ayman Islands Netherlands
c d b c d	900fr 900fr 900fr 900fr 900fr SS 3300fr	Chukar, Alectoris chukar Golden Eagle, Aquila chrysaetos Raggiana Bird-of-Paradise, Paradisaea raggiana  2016 November 16 (TG16406a&b) Wire-tailed Swallow, Hirundo smithii Cuban Parrot, Amazona leucocephala Black-tailed Godwit, Limosa limosa Red-crowned Crane, Grus japonensis R: Same species	Accipitridae Paradisaeidae Hirundinidae Psittacidae Ca Scolopacidae Gruidae	Iraq Egypt Papua N. G. A Estonia tyman Islands Netherlands
c d b c d	900fr 900fr 900fr 900fr 900fr SS 3300fr Margin	Chukar, Alectoris chukar Golden Eagle, Aquila chrysaetos Raggiana Bird-of-Paradise, Paradisaea raggiana  2016 November 16 (TG16406a&b) Wire-tailed Swallow, Hirundo smithii Cuban Parrot, Amazona leucocephala Black-tailed Godwit, Limosa limosa Red-crowned Crane, Grus japonensis R: Same species LL: Eurasian Tree Sparrow, Passer montanus	Accipitridae Paradisaeidae  Hirundinidae Psittacidae Ca Scolopacidae Gruidae  Passeridae  Upupidae	Iraq Egypt Papua N. G.  A Estonia syman Islands Netherlands China P.R.
c d b c d N/A	900fr 900fr 900fr 900fr 900fr SS 3300fr Margin 900fr 900fr	Chukar, Alectoris chukar Golden Eagle, Aquila chrysaetos Raggiana Bird-of-Paradise, Paradisaea raggiana  2016 November 16 (TG16406a&b) Wire-tailed Swallow, Hirundo smithii Cuban Parrot, Amazona leucocephala Black-tailed Godwit, Limosa limosa Red-crowned Crane, Grus japonensis R: Same species LL: Eurasian Tree Sparrow, Passer montanus  2016 November 16 (TG16407a) Eurasian Hoopoe, Upupa epops Dodo, Raphus cucullatus	Accipitridae Paradisaeidae  Hirundinidae Psittacidae Ca Scolopacidae Gruidae  Passeridae  Upupidae Columbidae	Iraq Egypt Papua N. G.  A Estonia syman Islands Netherlands China P.R.  A Israel Mauritania
c d b c d N/A	900fr 900fr 900fr 900fr 900fr SS 3300fr Margin 900fr 900fr	Chukar, Alectoris chukar Golden Eagle, Aquila chrysaetos Raggiana Bird-of-Paradise, Paradisaea raggiana  2016 November 16 (TG16406a&b) Wire-tailed Swallow, Hirundo smithii Cuban Parrot, Amazona leucocephala Black-tailed Godwit, Limosa limosa Red-crowned Crane, Grus japonensis R: Same species LL: Eurasian Tree Sparrow, Passer montanus  2016 November 16 (TG16407a) Eurasian Hoopoe, Upupa epops	Accipitridae Paradisaeidae  Hirundinidae Psittacidae Ca Scolopacidae Gruidae  Passeridae  Upupidae	Iraq Egypt Papua N. G.  A Estonia syman Islands Netherlands China P.R.  A Israel
c d b c d N/A	900fr 900fr 900fr 900fr 900fr SS 3300fr Margin 900fr 900fr	Chukar, Alectoris chukar Golden Eagle, Aquila chrysaetos Raggiana Bird-of-Paradise, Paradisaea raggiana  2016 November 16 (TG16406a&b) Wire-tailed Swallow, Hirundo smithii Cuban Parrot, Amazona leucocephala Black-tailed Godwit, Limosa limosa Red-crowned Crane, Grus japonensis R: Same species LL: Eurasian Tree Sparrow, Passer montanus  2016 November 16 (TG16407a) Eurasian Hoopoe, Upupa epops Dodo, Raphus cucullatus	Accipitridae Paradisaeidae  Hirundinidae Psittacidae Ca Scolopacidae Gruidae  Passeridae  Upupidae Columbidae	Iraq Egypt Papua N. G.  A Estonia syman Islands Netherlands China P.R.  A Israel Mauritania
c d b c d N/A	900fr 900fr 900fr 900fr 900fr SS 3300fr Margin 900fr 900fr 900fr	Chukar, Alectoris chukar Golden Eagle, Aquila chrysaetos Raggiana Bird-of-Paradise, Paradisaea raggiana  2016 November 16 (TG16406a&b) Wire-tailed Swallow, Hirundo smithii Cuban Parrot, Amazona leucocephala Black-tailed Godwit, Limosa limosa Red-crowned Crane, Grus japonensis R: Same species LL: Eurasian Tree Sparrow, Passer montanus  2016 November 16 (TG16407a) Eurasian Hoopoe, Upupa epops Dodo, Raphus cucullatus Hispaniolan Trogon, Priotelus roseigaster  2016 November 16 (TG16408a) Andean Condor, Vultur gryphus	Accipitridae Paradisaeidae  Hirundinidae Psittacidae Ca Scolopacidae Gruidae  Passeridae  Upupidae Columbidae Trogonidae  Cathartidae	Iraq Egypt Papua N. G.  A Estonia syman Islands Netherlands China P.R.  A Israel Mauritania Haiti A Chile
c d b c d N/A	900fr 900fr 900fr 900fr 900fr SS 3300fr Margin 900fr 900fr 900fr	Chukar, Alectoris chukar Golden Eagle, Aquila chrysaetos Raggiana Bird-of-Paradise, Paradisaea raggiana  2016 November 16 (TG16406a&b) Wire-tailed Swallow, Hirundo smithii Cuban Parrot, Amazona leucocephala Black-tailed Godwit, Limosa limosa Red-crowned Crane, Grus japonensis R: Same species LL: Eurasian Tree Sparrow, Passer montanus  2016 November 16 (TG16407a) Eurasian Hoopoe, Upupa epops Dodo, Raphus cucullatus Hispaniolan Trogon, Priotelus roseigaster  2016 November 16 (TG16408a)	Accipitridae Paradisaeidae  Hirundinidae Psittacidae Ca Scolopacidae Gruidae  Passeridae  Upupidae Columbidae Trogonidae	Iraq Egypt Papua N. G.  A Estonia syman Islands Netherlands China P.R.  A Israel Mauritania Haiti A

TOGC	(continued)	<b>2016 November 16</b> (TG16409a)	${f A}$
a		Giant Ibis, Pseudibis gigantean	Threskiornithidae Cambodia
c		Italian Sparrow, Passer italiae	Passeridae Italy
d	900fr	Lilac-breasted Roller, Coracias caudatus	Coraciidae Kenya
		<b>2016 November 16</b> (TG16410a&b)	${f A}$
c		Harpy Eagle, <i>Harpia harpyja</i>	Accipitridae Panama
d		Great Philippine Eagle, Pithecophaga jefferyi	Accipitridae Philippines
N/A		Red Junglefowl, Gallus gallus	Phasianidae France
	Margin	LR: Same species	
		<b>2016 November 16</b> (TG16411a&b)	<b>A</b>
a		Streamertail, Trochilus polytmus	Trochilidae Jamaica
b		Venezuelan Troupial, Icterus icterus	Icteridae Venezuela
d N/A		Andean Condor, <i>Vultur gryphus</i> UR & Bot: Little Owl, <i>Athene noctua</i>	Cathartidae Bolivia Strigidae Greece
1 <b>\</b> / /A	33 330011		
	0006	<b>2016 November 16</b> (TG16412a&b)	A Customala
a d	900fr	Resplendent Quetzal, <i>Pharomachrus mocinno</i> Goldcrest, <i>Regulus regulus</i>	Trogonidae Guatemala Regulidae Luxembourg
u N/A	SS 3300fr	Golden Eagle, Aquila chrysaetos	Accipitridae Germany
1 1// 1		R & Bot: Same species	recipititude Germany
	8	<b>2016 November 16</b> (TG16413a&b)	Α
a	900fr	Eurasian Blackbird, <i>Turdus merula</i>	Turdidae Sweden
b		Gray Crowned-Crane, Balearica regulorum	Gruidae Uganda
d	900fr	Saker Falcon, Falco cherrug	Falconidae Hungary
N/A	SS 3300fr	Indian Peafowl, Pavo cristatus	Phasianidae India
		<b>2016 November 16</b> (TG16414a&b)	Α
		<b>2010 110 (110) (110) (10)</b>	A
a	900fr	Ceylon Junglefowl, Gallus lafayettii	Phasianidae Sri Lanka
a b			<del></del>
b d	900fr 900fr	Ceylon Junglefowl, <i>Gallus lafayettii</i> Lammergeier, <i>Gypaetus barbatus</i> Eurasian Oystercatcher, <i>Haematopus ostralegus</i>	Phasianidae Sri Lanka Accipitridae Andorra Haematopodidae Faroe Is.
b	900fr 900fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus	Phasianidae Sri Lanka Accipitridae Andorra
b d	900fr 900fr	Ceylon Junglefowl, <i>Gallus lafayettii</i> Lammergeier, <i>Gypaetus barbatus</i> Eurasian Oystercatcher, <i>Haematopus ostralegus</i>	Phasianidae Sri Lanka Accipitridae Andorra Haematopodidae Faroe Is.
b d	900fr 900fr SS 3300fr 900fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi	Phasianidae Sri Lanka Accipitridae Andorra Haematopodidae Faroe Is. Cinclidae Norway  A Columbidae Grenada
b d N/A	900fr 900fr SS 3300fr 900fr 900fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara	Phasianidae Sri Lanka Accipitridae Andorra Haematopodidae Faroe Is. Cinclidae Norway  A Columbidae Grenada Phasianidae Gibraltar
b d N/A	900fr 900fr SS 3300fr 900fr 900fr 900fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara White-cheeked Turaco, Tauraco leucotis	Phasianidae Sri Lanka Accipitridae Andorra Haematopodidae Faroe Is. Cinclidae Norway  A Columbidae Grenada Phasianidae Gibraltar Musophagidae Ivory Coast
b d N/A a b c d	900fr 900fr SS 3300fr 900fr 900fr 900fr 900fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara White-cheeked Turaco, Tauraco leucotis Sinai Rosefinch, Carpodacus synoicus	Phasianidae Sri Lanka Accipitridae Andorra Haematopodidae Faroe Is. Cinclidae Norway  A Columbidae Grenada Phasianidae Gibraltar Musophagidae Ivory Coast Fringillidae Jordan
b d N/A	900fr 900fr SS 3300fr 900fr 900fr 900fr SS 3300fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara White-cheeked Turaco, Tauraco leucotis Sinai Rosefinch, Carpodacus synoicus Green Pheasant, Phasianus versicolor	Phasianidae Sri Lanka Accipitridae Andorra Haematopodidae Faroe Is. Cinclidae Norway  A Columbidae Grenada Phasianidae Gibraltar Musophagidae Ivory Coast
b d N/A a b c d	900fr 900fr SS 3300fr 900fr 900fr 900fr SS 3300fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara White-cheeked Turaco, Tauraco leucotis Sinai Rosefinch, Carpodacus synoicus Green Pheasant, Phasianus versicolor R & Bot: Same species	Phasianidae Sri Lanka Accipitridae Andorra Haematopodidae Faroe Is. Cinclidae Grenada Phasianidae Gibraltar Musophagidae Ivory Coast Fringillidae Jordan Phasianidae Japan
b d N/A	900fr 900fr SS 3300fr 900fr 900fr 900fr SS 3300fr Margin	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara White-cheeked Turaco, Tauraco leucotis Sinai Rosefinch, Carpodacus synoicus Green Pheasant, Phasianus versicolor R & Bot: Same species  2016 November 16 (TG16416a)	Phasianidae Andorra Haematopodidae Faroe Is. Cinclidae Anorra  Columbidae Grenada Phasianidae Gibraltar Musophagidae Ivory Coast Fringillidae Jordan Phasianidae Japan  A
b d N/A a b c d N/A	900fr 900fr SS 3300fr 900fr 900fr 900fr SS 3300fr Margin	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara White-cheeked Turaco, Tauraco leucotis Sinai Rosefinch, Carpodacus synoicus Green Pheasant, Phasianus versicolor R & Bot: Same species  2016 November 16 (TG16416a) Palestine Sunbird, Cinnyris osea	Phasianidae Sri Lanka Accipitridae Andorra Haematopodidae Faroe Is. Cinclidae Norway  A Columbidae Grenada Phasianidae Gibraltar Musophagidae Ivory Coast Fringillidae Jordan Phasianidae Japan  A Nectariniidae Palestine
b d N/A  a b c d N/A	900fr 900fr SS 3300fr 900fr 900fr 900fr SS 3300fr Margin 900fr 900fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara White-cheeked Turaco, Tauraco leucotis Sinai Rosefinch, Carpodacus synoicus Green Pheasant, Phasianus versicolor R & Bot: Same species  2016 November 16 (TG16416a) Palestine Sunbird, Cinnyris osea American Flamingo, Phoenicopterus ruber	Phasianidae Andorra Haematopodidae Faroe Is. Cinclidae Norway  A Columbidae Grenada Phasianidae Gibraltar Musophagidae Ivory Coast Fringillidae Jordan Phasianidae Japan  A Nectariniidae Palestine Phoenicopteridae Bahamas
b d N/A a b c d N/A	900fr 900fr SS 3300fr 900fr 900fr 900fr SS 3300fr Margin 900fr 900fr 900fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara White-cheeked Turaco, Tauraco leucotis Sinai Rosefinch, Carpodacus synoicus Green Pheasant, Phasianus versicolor R & Bot: Same species  2016 November 16 (TG16416a) Palestine Sunbird, Cinnyris osea American Flamingo, Phoenicopterus ruber Red-crested Turaco, Tauraco erythrolophus	Phasianidae Andorra Haematopodidae Faroe Is. Cinclidae Norway  A Columbidae Grenada Phasianidae Gibraltar Musophagidae Ivory Coast Fringillidae Jordan Phasianidae Japan  A Nectariniidae Palestine Phoenicopteridae Bahamas Musophagidae Angola
b d N/A  a b c d N/A	900fr 900fr SS 3300fr 900fr 900fr 900fr SS 3300fr Margin 900fr 900fr 900fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara White-cheeked Turaco, Tauraco leucotis Sinai Rosefinch, Carpodacus synoicus Green Pheasant, Phasianus versicolor R & Bot: Same species  2016 November 16 (TG16416a) Palestine Sunbird, Cinnyris osea American Flamingo, Phoenicopterus ruber Red-crested Turaco, Tauraco erythrolophus Rhinoceros Hornbill, Buceros rhinoceros	Phasianidae Andorra Haematopodidae Faroe Is. Cinclidae Anorra Columbidae Grenada Phasianidae Gibraltar Musophagidae Ivory Coast Fringillidae Jordan Phasianidae Japan  A  Nectariniidae Phoenicopteridae Phoenicopteridae Bahamas Musophagidae Bucerotidae Malaysia
b d N/A  a b c d N/A	900fr 900fr SS 3300fr 900fr 900fr 900fr SS 3300fr Margin 900fr 900fr 900fr 900fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara White-cheeked Turaco, Tauraco leucotis Sinai Rosefinch, Carpodacus synoicus Green Pheasant, Phasianus versicolor R & Bot: Same species  2016 November 16 (TG16416a) Palestine Sunbird, Cinnyris osea American Flamingo, Phoenicopterus ruber Red-crested Turaco, Tauraco erythrolophus Rhinoceros Hornbill, Buceros rhinoceros	Phasianidae Andorra Haematopodidae Faroe Is. Cinclidae Anorra Columbidae Grenada Phasianidae Gibraltar Musophagidae Ivory Coast Fringillidae Jordan Phasianidae Japan  A  Nectariniidae Phoenicopteridae Musophagidae Bucerotidae Malaysia  A  Nactariniidae Palestine Bahamas Musophagidae Bucerotidae Malaysia
b d N/A  a b c d N/A	900fr 900fr SS 3300fr 900fr 900fr 900fr SS 3300fr Margin 900fr 900fr 900fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara White-cheeked Turaco, Tauraco leucotis Sinai Rosefinch, Carpodacus synoicus Green Pheasant, Phasianus versicolor R & Bot: Same species  2016 November 16 (TG16416a) Palestine Sunbird, Cinnyris osea American Flamingo, Phoenicopterus ruber Red-crested Turaco, Tauraco erythrolophus Rhinoceros Hornbill, Buceros rhinoceros  2016 November 16 (TG16417a&b) Common Bulbul, Pycnonotus barbatus	Phasianidae Andorra Haematopodidae Faroe Is. Cinclidae Anorra Columbidae Grenada Phasianidae Gibraltar Musophagidae Ivory Coast Fringillidae Jordan Phasianidae Japan  A  Nectariniidae Phoenicopteridae Phoenicopteridae Bahamas Musophagidae Bucerotidae Malaysia
b d N/A  a b c d N/A  a b c d a b	900fr 900fr SS 3300fr 900fr 900fr 900fr SS 3300fr Margin 900fr 900fr 900fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara White-cheeked Turaco, Tauraco leucotis Sinai Rosefinch, Carpodacus synoicus Green Pheasant, Phasianus versicolor R & Bot: Same species  2016 November 16 (TG16416a) Palestine Sunbird, Cinnyris osea American Flamingo, Phoenicopterus ruber Red-crested Turaco, Tauraco erythrolophus Rhinoceros Hornbill, Buceros rhinoceros	Phasianidae Andorra Haematopodidae Faroe Is. Cinclidae Andorra Haematopodidae Faroe Is. Norway  A Columbidae Grenada Phasianidae Gibraltar Musophagidae Ivory Coast Fringillidae Jordan Phasianidae Japan  A Nectariniidae Palestine Phoenicopteridae Bahamas Musophagidae Angola Bucerotidae Malaysia  A Pycnonotidae Liberia
b d N/A  a b c d N/A  a b c d b c	900fr 900fr SS 3300fr 900fr 900fr 900fr SS 3300fr Margin 900fr 900fr 900fr 900fr 900fr 900fr 900fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara White-cheeked Turaco, Tauraco leucotis Sinai Rosefinch, Carpodacus synoicus Green Pheasant, Phasianus versicolor R & Bot: Same species  2016 November 16 (TG16416a) Palestine Sunbird, Cinnyris osea American Flamingo, Phoenicopterus ruber Red-crested Turaco, Tauraco erythrolophus Rhinoceros Hornbill, Buceros rhinoceros  2016 November 16 (TG16417a&b) Common Bulbul, Pycnonotus barbatus White-breasted Waterhen, Amaurornis phoenicurus African Fish-Eagle, Haliaeetus vocifer Northern Goshawk, Accipiter gentilis	Phasianidae Andorra Haematopodidae Faroe Is. Cinclidae Andorra Haematopodidae Faroe Is. Cinclidae Grenada Phasianidae Gibraltar Musophagidae Ivory Coast Fringillidae Jordan Phasianidae Japan  A  Nectariniidae Phoenicopteridae Bahamas Musophagidae Bucerotidae Malaysia  A  Pycnonotidae Liberia Rallidae Maldives Accipitridae Namibia Accipitridae N. Korea
b d N/A  a b c d N/A  a b c d c	900fr 900fr SS 3300fr 900fr 900fr 900fr SS 3300fr Margin 900fr 900fr 900fr 900fr 900fr 900fr 900fr SS 3300fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara White-cheeked Turaco, Tauraco leucotis Sinai Rosefinch, Carpodacus synoicus Green Pheasant, Phasianus versicolor R & Bot: Same species  2016 November 16 (TG16416a) Palestine Sunbird, Cinnyris osea American Flamingo, Phoenicopterus ruber Red-crested Turaco, Tauraco erythrolophus Rhinoceros Hornbill, Buceros rhinoceros  2016 November 16 (TG16417a&b) Common Bulbul, Pycnonotus barbatus White-breasted Waterhen, Amaurornis phoenicurus African Fish-Eagle, Haliaeetus vocifer Northern Goshawk, Accipiter gentilis North Island Brown Kiwi, Apteryx mantelli	Phasianidae Andorra Haematopodidae Faroe Is. Cinclidae Anorra Columbidae Grenada Phasianidae Gibraltar Musophagidae Ivory Coast Fringillidae Jordan Phasianidae Japan  A  Nectariniidae Phoenicopteridae Bucerotidae Malaysia  Pycnonotidae Rallidae Accipitridae Namibia
b d N/A  a b c d N/A  a b c d  c d	900fr 900fr SS 3300fr 900fr 900fr 900fr SS 3300fr Margin 900fr 900fr 900fr 900fr 900fr 900fr 900fr SS 3300fr	Ceylon Junglefowl, Gallus lafayettii Lammergeier, Gypaetus barbatus Eurasian Oystercatcher, Haematopus ostralegus White-throated Dipper, Cinclus cinclus  2016 November 16 (TG16415a&b) Grenada Dove, Leptotila wellsi Barbary Partridge, Alectoris barbara White-cheeked Turaco, Tauraco leucotis Sinai Rosefinch, Carpodacus synoicus Green Pheasant, Phasianus versicolor R & Bot: Same species  2016 November 16 (TG16416a) Palestine Sunbird, Cinnyris osea American Flamingo, Phoenicopterus ruber Red-crested Turaco, Tauraco erythrolophus Rhinoceros Hornbill, Buceros rhinoceros  2016 November 16 (TG16417a&b) Common Bulbul, Pycnonotus barbatus White-breasted Waterhen, Amaurornis phoenicurus African Fish-Eagle, Haliaeetus vocifer Northern Goshawk, Accipiter gentilis	Phasianidae Andorra Haematopodidae Faroe Is. Cinclidae Andorra Haematopodidae Faroe Is. Cinclidae Grenada Phasianidae Gibraltar Musophagidae Ivory Coast Fringillidae Jordan Phasianidae Japan  A  Nectariniidae Phoenicopteridae Bahamas Musophagidae Bucerotidae Malaysia  A  Pycnonotidae Liberia Rallidae Maldives Accipitridae Namibia Accipitridae N. Korea

TOGO	(continued)	<b>2016 November 16</b> (TG16418a&b)		A
a		Turquoise-browed Motmot, Eumomota superciliosa	Momotidae	Nicaragua
b		Black Crowned-Crane, Balearica pavonina	Gruidae	Nigeria
С		Puerto Rican Spindalis, Spindalis portoricensis	Thraupidae <b>new</b> F	
d		Barn Swallow, Hirundo rustica	Hirundinidae	Austria
N/A		Tundra Swan, Cygnus columbianus	Anatidae	Russia
	Margin	R & Bot: Same species		
		<b>2016 November 16</b> (TG16419a&b)		$\mathbf{A}$
a	900fr	Keel-billed Toucan, Ramphastos sulfuratus	Ramphastidae	Belize
b	900fr	Bermuda Petrel, Pterodroma cahow	Procellariidae	Bermuda
c	900fr	Palmchat, Dulus dominicus	Dulidae Domi	nican Rep.
d		Andean Condor, Vultur gryphus	Cathartidae	Ecuador
N/A	SS 3300fr	Blue Crane, Anthropoides paradiseus	Gruidae Cer	ntral Africa
	Margin	UR: Same species		
		<b>2016 November 16</b> (TG16420a&b)		A
a	900fr	Bare-throated Bellbird, Procnias nudicollis	Cotingidae	Paraguay
b	900fr	Scarlet Ibis, Eudocimus ruber	Threskiornithidae	Trinidad
c	900fr	African Fish-Eagle, Haliaeetus vocifer	Accipitridae	Zambia
d	900fr	Saker Falcon, Falco cherrug	Falconidae	Mongolia
N/A	SS 3300fr	Redwing, Turdus iliacus	Turdidae	Turkey
		<b>2016 November 16</b> (TG16421a&b)		A
a	900fr	Crimson Sunbird, Aethopyga siparaja	Nectariniidae	Singapore
d	900fr	Turquoise-browed Motmot, Eumomota superciliosa	Momotidae	Salvador
N/A	SS 3300fr	Red Kite, Milvus milvus	Accipitridae	UK
		<b>2016 November 16</b> (TG16422a&b)		$\mathbf{A}$
b	900fr	Kori Bustard, Ardeotis kori	Otididae	Botswana
d	900fr	Gray Peacock-Pheasant, Polyplectron bicalcaratum	Phasianidae	Myanmar
N/A		Bald Eagle, Haliaeetus leucocephalus	Accipitridae	US
		R & Bot: Same species	•	
TONG		2016 April 25 (400th anniv. Dutch Explore	rs in Tonga) (MS/4	<b>C</b>
1295a		White Tern, Gygis alba (in bkgrd)	Laridae	,
1295b	2.25pa	Same species	Lurrano	
1295c	•	Same species		
1295d	•	Same species		
	•	•	) (3.60/4)	
UNITI 628a		<b>VS (Geneva) 2016 September 24</b> (World Wildlife Confe Gray Crowned-Crane, <i>Balearic regulorum</i>	rence) (MS/4) Gruidae	A
	ED NATION	<u> </u>		A
596b	€1.70	Cape Vulture, Gyps coprotheres	Accipitridae	

### **NEW BIRDS IN THE PHILATELIC AVIARY**

### Charles E. Braun, BU1364

#### **Corrections**

In Vol. 65(4), p.303, the correct name of the Guinea bird is **BROWN-HEADED PARADISE-KINGFISHER**, and on p.306, the correct name is **SALTMARSH SPARROW**.

In Vol. 64(3), p.103, the bird on Bolivia, 2011, 5.50b has been identified as a Giant Coot. Horned Coot is removed from the Aviary.



#### **New Birds**

### BARE-FACED IBIS, Phimosus infuscatus Threskiornithidae

St. Martin, 2017 January 20, not yet cataloged, 125c

Length: 18 to 22 inches. Sexes alike, resident. Black with a red face, bill, and legs.

Habitat: Open wet areas.

Range: Eastern Colombia to eastern Bolivia and Uruguay.

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the Birds

of the World, Volume 1.



#### GRAY HAWK, Buteo plagiatus Accipitridae

St. Thomas & Prince, 2016 September 12, not yet cataloged, 31000d (Surinam, 2015, Sc#14831, \$7.55 shows a Gray-lined Hawk, *Buteo nitidus*)

Length; 15 to 17 inches, sexes alike, migratory. Gray above and whitish below with a white-barred black tail.

Habitat: Tropical and subtropical zones.

Range: Breeds from southern Texas and New Mexico to northwestern Costa Rica.

Winters from Mexico to northwestern Costa Rica,

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the Birds of the World, Volume 2.



of the World, Volume 3.

### LARGE-BILLED TERN, Phaetusa simplex Laridae

St. Martin, 2017 January 20, not yet cataloged, 100c

Length: 15 inches, sexes alike, migratory. Gray above and white below with a black crown, ear coverts, and tail and a yellow bill.

Habitat: Inland lakes and rivers. Winters on the coast.

Range: Eastern Colombia to Trinidad and north-central Argentina and coastal

Ecuador. Winters along the Atlantic coast.

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the Birds



## WHITE-WINGED COLLARED-DOVE, Streptopelia reichenowi Columbidae.

Mozambique, 2015 June 15, not yet cataloged, MS/4 LR margin

Length: 10 inches, resident. The male (shown) is brown above and creamy white below with a dark bluish-gray head and a black hind collar. The female is grayish-brown above.

Habitat: Broad-leaved trees and fan palms.

Range: Southeastern Ethiopia and southwestern Somalia.

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook

of the Birds of the World, Volume 4.



### PAPUAN MOUNTAIN-PIGEON, Gymnophaps albertisii Columbidae

Djibouti, 2016 September 26, not yet cataloged, 260fr

Length: 13 to 14 inches, resident. The male (shown) is dark gray above and pinkish cream below with red eyes. The female is gray below.

Habitat: Primary forest.

Range: New Guinea, New Britain, New Ireland, and Bacan (Moluccas).

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the Birds of the

World, Volume 4.



# **WHITE-THROATED HUMMINGBIRD**, *Leucochloris albicollis* Trochilidae Mozambique, 2016 July 10, not yet cataloged, 100m

Length: 4 to 5 inches, sexes similar, resident. Golden to bronze-green above and white below with a green breast.

Habitat: Forest edges, scrub, and marshes.

Range: Eastern Bolivia to southeastern Brazil and northern Argentina.

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the Birds of

the World, Volume 5.



# **GLOSSY BLACK-COCKATOO**, *Calyptorhynchus lathami* Cacatuidae Guinea, 2014 May 15, not yet cataloged, 15000fr

Length: 18 to 20 inches, resident. The male (shown) is black with a red panel across the tail. The female has yellow patches on the head.

Habitat: Coastal forest and woodland.

Range: Eastern Australia

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the

Birds of the World, Volume 4.



### WHITE COCKATOO, Cacatua alba Cacatuidae

Sierra Leone, 2016 August 29, not yet cataloged, SS 24000Le

Length: 19 inches, resident. The male (shown) is white with a gray-black bill, gray feet and a black eyes. The female has red-brown eyes.

Habitat: Primary and logged lowland forest.

Range: Southern Moluccas, Indonesia.

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the Birds of the

World, Volume 4.



### WREN-LIKE RUSHBIRD, Phleocryptes melanops Furnariidae

Uruguay, 2016 December 1, not yet cataloged, 20p

Length: 5 inches, sexes similar, mainly resident. Brown-streaked black above and whitish buff below with a dark-brown head and white superciliary, and throat.

Habitat: Marshes and lake edges.

Range: Western Peru to southern Chile and southeastern Brazil

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the Birds of the

World, Volume 8.



### $SOUTHERN\ MARQUESAN\ REED-WARBLER, A crocephalus\ mandanae$

Acrocephalidae

French Polynesia, 2016 December 9, not yet cataloged, 100fr

Length: 7 inches, sexes similar, resident. Yellowish-olive and greenish-olive above and bright yellow below with a yellow supercilium.

Habitat: Plantations, bushy hillsides, and wet upland forest.

Range: Marquesas, French Polynesia.

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the Birds of the World, Volume 11.



### LONG-BILLED SUNBIRD, Cinnyris lotenius

Sierra Leone. 2016 August 29, not yet cataloged, 6000Le

Length: 5 inches, resident. The male (shown) is dark glossed blue-green and purple above and metallic purple below. The female is brownish-olive above and yellow below.

Habitat: Deciduous woodland, farms, and gardens.

Range: Southwestern and southern India and Sri Lanka.

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the Birds of the

World, Volume 13.



# **PUERTO RICAN SPINDALIS,** *Spindalis portoricensis* Thraupidae Togo, 2016 November 16, not yet cataloged, 900fr

Length: 7 inches, resident. The male (shown) is olive green above and yellow below with a white-striped black head and an orange collar. The female is olive-brown above and pale sandy buff below with a whitish supercilium and a yellowish collar.

Habitat: Woodland and forest.

Range: Puerto Rico.

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the Birds of

the World, Volume 16.

#### **BARN SWALLOW**

The U.S. Postal Service will issue a new postal stationery item on Friday, 3 March 2017, at the American Philatelic Society (APS) AmeriStamp Expo at the Reno Sparks Convention Center in Reno, Nevada.

The first day ceremony will take place at 11:00 AM on the show floor.

The design shows a Barn Swallow (*Hirundo rustica*) perched on a branch with another swallow in flight behind it.

The format is still to be determined. However, the new stamped envelope continues a series depicting wild birds that began in 2012 with the Purple Martin envelope (Sc#U677–78) and continued in 2013 with the Bank Swallow envelope (Sc#U680–81). So, it is likely that the envelopes will be issued in two standard sizes. Art director William J. Gicker designed the stamp based on original art by Matthew Frey.

The USPS previously issued a non-profit embossed envelope in 1991 depicting silhouettes of barn swallows perched on lines (Sc#U620).

The Barn Swallow is the most widespread swallow species in the world. They breed across the Northern Hemisphere and winter in the Southern Hemisphere.

These birds originally nested in caves or on cliff faces, but adapted to using man-made structures by building their Official First Day of Issue

Barn Swallow

Nonprofit
FIRST DAY OF ISSUE

11.1¢
Nonprofit Envelope
Series of 1991

mud nests under the eaves of barns, houses, and bridges.

Barn swallows are acrobatic flyers, and a single bird can catch and consume thousands of insects in one day.





## **HERPETOLOGY**

## Associate Editor Dick Roman, LM83

**New Listings** 



[Ed. Note: Occasionally in this section and also in the Fungi section, we will note a species that is known to be poisonous by marking it with a (\$) symbol. One should not infer that other species that are not so marked are non-poisonous or safe to handle/eat.]

Scott#	Denom	Common Name/Scientific Name	Family/Subfamily Code
AUSTR	ALIA	2016 August 16 (Items Starting w	ith Same Letter) (Set/5 & Coil strip/5)
4521	\$1	Crocodile, <i>Crocodylus</i> sp. (perf 14 <sup>3</sup> / <sub>4</sub> ×14)	Crocodylidae B
4522	\$1	Lace Monitor, Varanus varius (perf 143/4×14)	Varanidae, Platynota B
4526	\$1	Crocodile, <i>Crocodylus</i> sp. (s/a) (die cut 11 <sup>1</sup> / <sub>4</sub> )	Crocodylidae B
4526a		Bklt/10 (Sc#4526)	
4527	\$1	Lace Monitor, Varanus varius (die cut 111/4)	Varanidae, Platynota B
4527a		Bklt/10 (Sc#4527)	
4529b		Vert coil strip/5 (Sc#4525–29)	
		2016 September 20 (Endangered	Animals) (Set/7, SS/7, & Bklts)
4540	\$1	Western Swamp Turtle, Pseudemydura umbrina	Mantellidae, Mantellinae A
4543	\$1	Carroboree Frog, Pseudophryne corroboree	Myobatrachidae, Limnodynastinae A
4543a		SS/7 (Sc#4537–43) (perf 14×14¾, 13¾×14)	
4545	\$1	Western Swamp Turtle, <i>Pseudemydura umbrina</i> (s/a)	Mantellidae, Mantellinae A
4547a		Horiz coil strip/4 (Sc#4544–47) (s/a) (die cut 11 <sup>1</sup> / <sub>4</sub> )	
4547b		Bklt/20 (6ea Sc#4544–45 & 4ea Sc#4546–47) (s/a) (die	
4548	\$1	Carroboree Frog, Pseudophryne corroboree	Myobatrachidae, Limnodynastinae A
4548a		Bklt/10 (Sc#4548) (s/a) (103/4×11)	
CAYMA	N ISLAN	<b>IDS 2015 December 2</b> (Children's Chr	ristmas stamps winning designs)(Set/4)
1163	75c	Stylized turtle (by Zara Garofolo)	S
CHRIST	TMAS ISI	<b>2016 February 3</b> (New Year Type	es of 2008–15) (MS/14)
545j	50c	Stylized snake	S
545o		Bklt/4 (Sc#545f, Sc#545j, 2ea Sc#543) (perf 14¾×14)	
545		MS/14 (Sc#543–44, Sc#545a–1)	
546i	60c	Stylized snake	S
546		MS/13 (Sc#546a-m) (s/a) (die cut 12 <sup>1</sup> / <sub>4</sub> )	
<b>CZECH</b>	REPUBL	<b>IC 2016 September 7</b> (Tree Frog)	
3681	(16k)	European Tree Frog, Hyla arborea	Hylidae A
		<b>2016 September 7</b> (Animals in Ca	zech Republic Zoos) (MS/4)
3685	Margin	UL: Gharial, Gavialis gangeticus	Gavialidae Z
DOMIN	ICA	<b>2015 December 1</b> (Morne Trois P	itons N.P.) (MS/6)
2808c		Lesser Antillean Iguana, Iguana delicatissima	Iguanidae, Iguania A
DOMIN	ICAN RE	<b>PUBLIC 2016 June 15</b> (Anoles) (Block/4)	-
1595a		Anolis divius Köhler & Hedges	Polychrotidae (new) A
1595b		Anolis prasinorius Köhler & Hedges	Polychrotidae (new) A
1595c		Anolis viridius Köhler & Hedges	Polychrotidae (new) A
1595d	_	Anolis eladioi Köhler & Hedges	Polychrotidae (new) A
		Č	•

<b>ECUADO</b>	R	2015 November 11 (Tourism) (Strip/5, SS,	& 2ea Bklt/8)			
2169a	\$1	Green Sea Turtle, Chelonia mydas	Cheloniidae	A		
2169c	\$1	Smooth-fronted Caiman, Paleosuchus trigonatus		new) A		
2169e	\$1	Marine Iguana, Amblyrhynchus cristatus	Iguanidae, Iguania	A		
2170	\$5	UL: Galápagos Giant Tortoise, Chelonoidis nigra	Testudinidae	В		
		UR: U/I Caiman	Alligatoridae	В		
2171a	25c	Amazon Basin Emerald Tree Boa, Corallus batesii	Boidae. Boinae	A		
2171e	75c	Pacific Horned Frog, Ceratophrys stolzmanni	Ceratophryidae	A		
2171	2.5	Bklt/8 (Sc#2171a–h) (s/a) (die cut)	· · · · · ·			
2172b	25c	Marine Iguana, <i>Amblyrhynchus cristatus</i>	Iguanidae, Iguania	A		
2172		Bklt/8 (Sc#2172a-h) (s/a) (die cut)				
		<b>2016 March 31</b> (Amphibians) (Bklt/8) (s/a)				
2177a		Anthony's Poison Arrow Frog, Epipedobates anthonyi (\$) De				
2177b		Prince Charles Stream Tree Frog, Hyloscirtus princecharlesi	Hylidae	A		
2177c	50c	Oophaga sylvatica (\$)	Dendrobatidae	A		
2177d	50c	Pacific Horned Frog, Ceratophrys stolzmanni	Ceratophryidae	A		
2177e	75c	Andean Marsupial Tree Frog, Gastrotheca riobambae	Hemiphractidae	Α		
2177f	75c		lenidae, Hyalinobatrac			
2177g	\$1	Imbabura Tree Frog, Hypsiboas picturatus	Hylidae, Hylinae	A		
2177h	\$1	Rio Pescado Stubfoot Toad, Atelopus balios	Bufonidae	A		
FRANCE		2016 January 29 (Year of the Monkey) (M	S/4)	~		
4971a	80c	Stylized snake (like Sc#4315)		S		
MEXICO		2015 May 24 (25th anniv. University of Qu	intana Roo)			
3007	11.50p	3007 11.50p Stylized snake on Mexican coat of arms (tiny) S C				
NEW CALEDONIA 2016 June 10 (Natural Park of the Coral Sea)						
		,				
<b>NEW CA</b> 1212		IA 2016 June 10 (Natural Park of the Coral Se Green Sea Turtle, <i>Chelonia mydas</i>	a) Cheloniidae	C		
1212 SRI LANI	1.10fr <b>KA</b>	Green Sea Turtle, <i>Chelonia mydas</i> <b>2016 May 27</b> (50th anniv. Sri Lanka Touris	Cheloniidae			
1212	1.10fr <b>KA</b>	Green Sea Turtle, Chelonia mydas	Cheloniidae	C S C		
1212 SRI LANI	1.10fr <b>KA</b>	Green Sea Turtle, <i>Chelonia mydas</i> <b>2016 May 27</b> (50th anniv. Sri Lanka Touris	Cheloniidae			
1212 <b>SRI LAN</b> 2025	1.10fr <b>KA</b> 15r	Green Sea Turtle, <i>Chelonia mydas</i> 2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)	Cheloniidae			
1212 <b>SRI LAN</b> 2025 <b>TONGA</b>	1.10fr <b>KA</b> 15r	Green Sea Turtle, <i>Chelonia mydas</i> 2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4)	Cheloniidae m)	SC		
1212 SRI LAND 2025 TONGA 1290 1291 1292	1.10fr <b>KA</b> 15r 1.20pa 2pa 2.25pa	Green Sea Turtle, <i>Chelonia mydas</i> 2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4)  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> (with white frame) Same species Same species	Cheloniidae m)	S C		
1212 SRI LANI 2025 TONGA 1290 1291 1292 1293	1.10fr <b>KA</b> 15r 1.20pa 2pa 2.25pa 2.70pa	Green Sea Turtle, <i>Chelonia mydas</i> 2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4)  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> (with white frame)  Same species  Same species  Same species	Cheloniidae m) Iguanidae, Iguania	S C  A A A A		
1212 SRI LAND 2025 TONGA 1290 1291 1292 1293 1294a	1.10fr <b>KA</b> 15r 1.20pa 2pa 2.25pa 2.70pa 1.20pa	Green Sea Turtle, <i>Chelonia mydas</i> 2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4)  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> (with white frame)  Same species  Same species  Same species  Fiji Banded Iguana, <i>Brachylophus fasciatus</i>	Cheloniidae m)	S C  A A A A A		
1212 SRI LANI 2025 TONGA 1290 1291 1292 1293 1294a 1294b	1.10fr <b>KA</b> 15r 1.20pa 2pa 2.25pa 2.70pa 1.20pa 2pa	Green Sea Turtle, <i>Chelonia mydas</i> 2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4)  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> (with white frame)  Same species  Same species  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> Same species	Cheloniidae m) Iguanidae, Iguania	S C  A A A A A A		
1212 SRI LAND 2025 TONGA 1290 1291 1292 1293 1294a 1294b 1294c	1.10fr <b>KA</b> 15r 1.20pa 2pa 2.25pa 2.70pa 1.20pa 2pa 2pa 2.25pa	Green Sea Turtle, <i>Chelonia mydas</i> 2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4)  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> (with white frame)  Same species  Same species  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> Same species  Same species  Same species  Same species	Cheloniidae m) Iguanidae, Iguania	S C A A A A A A A		
1212 SRI LAND 2025 TONGA 1290 1291 1292 1293 1294a 1294b 1294c 1294d	1.10fr <b>KA</b> 15r 1.20pa 2pa 2.25pa 2.70pa 1.20pa 2pa 2pa 2.25pa	Green Sea Turtle, <i>Chelonia mydas</i> 2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4)  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> (with white frame)  Same species  Same species  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> Same species  Same species  Same species  Same species  Same species  Same species	Cheloniidae m) Iguanidae, Iguania	S C  A A A A A A		
1212 SRI LAND 2025 TONGA 1290 1291 1292 1293 1294a 1294b 1294c	1.10fr <b>KA</b> 15r 1.20pa 2pa 2.25pa 2.70pa 1.20pa 2pa 2pa 2.25pa	Green Sea Turtle, <i>Chelonia mydas</i> 2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4)  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> (with white frame)  Same species  Same species  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> Same species  Same species  Same species  Same species	Cheloniidae m) Iguanidae, Iguania	S C A A A A A A A		
1212 SRI LAND 2025 TONGA 1290 1291 1292 1293 1294a 1294b 1294c 1294d	1.10fr  KA  15r  1.20pa 2pa 2.25pa 2.70pa 1.20pa 2pa 2.25pa 2.70pa 2.25pa 2.70pa	Green Sea Turtle, <i>Chelonia mydas</i> 2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4)  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> (with white frame)  Same species  Same species  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> Same species	Cheloniidae m) Iguanidae, Iguania Iguanidae, Iguania	S C A A A A A A A A A		
1212 SRI LANI 2025 TONGA 1290 1291 1292 1293 1294a 1294b 1294c 1294d 1294	1.10fr  KA  15r  1.20pa 2pa 2.25pa 2.70pa 1.20pa 2pa 2.25pa 2.70pa NATIO	Green Sea Turtle, <i>Chelonia mydas</i> 2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4)  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> (with white frame)  Same species  Same species  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> Same species	Cheloniidae m) Iguanidae, Iguania Iguanidae, Iguania	S C A A A A A A A		
1212 SRI LAN 2025 TONGA 1290 1291 1292 1293 1294a 1294b 1294c 1294d 1294 UNITED	1.10fr  KA  15r  1.20pa 2pa 2.25pa 2.70pa 1.20pa 2pa 2.25pa 2.70pa NATION Margin	Green Sea Turtle, <i>Chelonia mydas</i> 2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4)  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> (with white frame) Same species Same species Fiji Banded Iguana, <i>Brachylophus fasciatus</i> Same species Strip/4 (Sc#1294a–d) (without white frame)	Cheloniidae m)  Iguanidae, Iguania  Iguanidae, Iguania  t Goals) (MS/17)	S C  A A A A A A A S C		
1212 SRI LAN 2025 TONGA 1290 1291 1292 1293 1294a 1294b 1294c 1294d 1294 UNITED	1.10fr  KA  15r  1.20pa 2pa 2.25pa 2.70pa 1.20pa 2pa 2.25pa 2.70pa  NATIOI Margin  NATIOI	Green Sea Turtle, <i>Chelonia mydas</i> 2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4)  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> (with white frame)  Same species  Same species  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> Same species  Strip/4 (Sc#1294a–d) (without white frame)  NS  2016 October 24 (Sustainable Development LL: Stylized bullfrog silhouette	Cheloniidae m)  Iguanidae, Iguania  Iguanidae, Iguania  t Goals) (MS/17)	S C  A A A A A A A A A A A A A A A A A A		
1212 SRI LAND 2025 TONGA 1290 1291 1292 1293 1294a 1294b 1294c 1294d 1294 UNITED 1147 UNITED	1.10fr  KA  15r  1.20pa 2pa 2.25pa 2.70pa 1.20pa 2pa 2.25pa 2.70pa  NATIOI Margin  NATIOI	Green Sea Turtle, <i>Chelonia mydas</i> 2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4)  Fiji Banded Iguana, <i>Brachylophus fasciatus</i> (with white frame) Same species Same species Fiji Banded Iguana, <i>Brachylophus fasciatus</i> Same species Fiji Banded Iguana, <i>Brachylophus fasciatus</i> Same species Same species Same species Same species Same species Strip/4 (Sc#1294a–d) (without white frame)  NS  2016 October 24 (Sustainable Development LL: Stylized bullfrog silhouette  NS (Geneva)  2016 September 24 (World Wildlife Confe	Cheloniidae m)  Iguanidae, Iguania  Iguanidae, Iguania  t Goals) (MS/17)  rence Johannesburg) (I	S C  A A A A A A A A A A A A A A A A A A		
1212 SRI LAND 2025 TONGA 1290 1291 1292 1293 1294a 1294b 1294c 1294d 1294 UNITED 1147 UNITED	1.10fr  KA  15r  1.20pa 2pa 2.25pa 2.70pa 1.20pa 2pa 2.25pa 2.70pa  NATION Margin  NATION 2fr	2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4)  Fiji Banded Iguana, Brachylophus fasciatus (with white frame) Same species Same species Fiji Banded Iguana, Brachylophus fasciatus Same species Fiji Banded Iguana, Brachylophus fasciatus Same species Same species Same species Same species Same species Same species Strip/4 (Sc#1294a–d) (without white frame)  NS  2016 October 24 (Sustainable Development LL: Stylized bullfrog silhouette  NS (Geneva)  2016 September 24 (World Wildlife Confermal Malagasy Painted Mantella, Mantella madagascariensis	Cheloniidae m)  Iguanidae, Iguania  Iguanidae, Iguania  t Goals) (MS/17)  rence Johannesburg) (I	S C  A A A A A A A A A A A A A A A A A A		
1212 SRI LAN 2025 TONGA 1290 1291 1292 1293 1294a 1294b 1294c 1294d 1294 UNITED 1147 UNITED 628b	1.10fr  KA  15r  1.20pa 2pa 2.25pa 2.70pa 1.20pa 2pa 2.25pa 2.70pa  NATION Margin  NATION Off Margin  Margin	2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4) Fiji Banded Iguana, Brachylophus fasciatus (with white frame) Same species Same species Fiji Banded Iguana, Brachylophus fasciatus Same species Fiji Banded Iguana, Brachylophus fasciatus Same species Same species Same species Same species Same species Strip/4 (Sc#1294a–d) (without white frame)  NS  2016 October 24 (Sustainable Development LL: Stylized bullfrog silhouette  NS (Geneva)  2016 September 24 (World Wildlife Confermal Malagasy Painted Mantella, Mantella madagascariensis  2016 October 24 (Sustainable Development LL: Stylized bullfrog silhouette	Cheloniidae m)  Iguanidae, Iguania  Iguanidae, Iguania  t Goals) (MS/17)  rence Johannesburg) (I Mantellidae, Mantelli t Goals) (MS/17)	S C  A A A A A A A A A S C  MS/4) inae A		
1212 SRI LAN 2025 TONGA 1290 1291 1292 1293 1294a 1294b 1294c 1294d 1294 UNITED 1147 UNITED 628b	1.10fr  KA  15r  1.20pa 2pa 2.25pa 2.70pa 1.20pa 2pa 2.25pa 2.70pa  NATION Margin  NATION Margin  NATION Margin  NATION NATION Margin	2016 May 27 (50th anniv. Sri Lanka Touris Stylized sea turtle & lizard silhouettes (tiny)  2016 March 14 (WWF) (Set/4 & Strip/4)  Fiji Banded Iguana, Brachylophus fasciatus (with white frame) Same species Same species Fiji Banded Iguana, Brachylophus fasciatus Same species Fiji Banded Iguana, Brachylophus fasciatus Same species Same species Same species Same species Same species Strip/4 (Sc#1294a–d) (without white frame)  NS  2016 October 24 (Sustainable Development LL: Stylized bullfrog silhouette  NS (Geneva)  2016 September 24 (World Wildlife Confermal Malagasy Painted Mantella, Mantella madagascariensis  2016 October 24 (Sustainable Development	Cheloniidae m)  Iguanidae, Iguania  Iguanidae, Iguania  t Goals) (MS/17)  rence Johannesburg) (I Mantellidae, Mantelli t Goals) (MS/17)	S C  A A A A A A A A A S C  MS/4) inae A		

UNITED NATIONS (Vienna) (cont) 2016 October 24 (Sustainable Development Goals) (MS/17)

Margin LL: Stylized bullfrog silhouette

S C

**UZBEKISTAN** 

2016 May 23 (Fauna) (Set/2)

809 1900s Horsfield's Tortoise, Testudo horsfieldii

Testudinidae

Α

### **FLORA STAMPS**

The Marshall Islands will issue a pane of ten 49c flora stamps at a first day ceremony during the American Philatelic Society AmeriStamp Expo in Reno, Nevada. The show will take place 3-5 March 2017, at the Reno-Sparks Convention Center, 4590 South Virginia Street.

The first day ceremony is set for 1:00 PM on Friday, 3 March. See the show website (http://stamps.org/AmeriStamp-Expo-ASE) for information about the ceremony and other scheduled events.



The Flowers depicted are (top row, from left): Plumeria (*Plumeria rubra*), Hibiscus (*Hibiscus rosa-sinensis*), Primrose Willow (*Ludwigia peruviana*), Soursop (*Annona muricata*), and Globe Amaranth (*Gomphrena globosa*);

(bottom row, from left) Arrowleaf Elephant's Ear (*Xanthosoma sagittifolium*), Field Pumpkin (*Cucurbita pepo*), Asiatic Pennywort (*Centella asiatica*), Fire-on-the-Mountain (*Euphorbia cyathophora*), and Polynesian Arrowroot (*Tacca leontopetaloides*).

The stamps were designed by Unicover artist D.Z. Seemel.

**ICE WORMS** 

We are continually discovering that life can exist in conditions once thought impossible. In the 1970s, scientists discovered thriving communities living around hydrothermal vents at great depths along the mid-ocean ridges. These organisms exist in the complete absence of sunlight, which was once thought to be the sole source of energy for all forms of life.

The species in these ecosystems depend on bacteria that synthesize organic material from the vent chemicals. In addition, they live in temperatures that would cook most other creatures.

According to Heraclitus of Ephesus in his Theory of Opposites, everything has an opposite and therefore, if there are organisms that survive in great heat, there must be others that survive in great cold.

Thus, we present the ice worm. Ice worms are annelids (segmented worms) belonging to the genus *Mesenchytraeus*. This genus contains 77 species, the majority of which live in gravel beds, or in riverine habitats. However, the best known members are found living in glacial ice.

Mesenchytraeus solifugus spends its entire life in coastal glaciers from Alaska to northern Washington state. They tunnel through the ice eating snow algae and pollen. Counts reveal between 30 and 300 worms per square meter. This makes the total quantity of worms in all the coastal glaciers greater than Earth's entire human population. They are dark brown and measure only 15 mm (0.6 in) in length. Scientists believe their life span is five to ten years.



Ice worms are the only worms known to spend their entire life in temperatures near the freezing point of water. They have a very narrow acceptable temperature range. They will freeze at about –6.8 C (19.8°F) and their bodies literally melt at temperatures above 5 C (41°F).

Researchers are now investigating what prevents the worm from freezing at 0 C (32°F). Understanding the ice worm's secret could help preserve vital organs for transplant, and could aid in understanding possible life forms on cold planets. Unfortunately, there is yet to be a stamp depicting these creatures.

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# **MARINE INVERTEBRATES**

## Editor Ian Hunter, BU1619

## New Listings



Scott#	Denom	Common Name/Scientific Name	Family/Subfamily	Code		
<b>ALBANIA 2015 December 23</b> (Underwater Fauna) (Horiz pair & SS/1)						
2980a	51	Mediterranean Fan Worm, Sabella spallanzanii	Sabellidae	A		
2980b	1501	Mediterranean Feather Star, Antedon mediterranea	Antedonidae	A		
2981	SS 2501	Mediterranean Jelly Fish, Cotylorhiza tuberculata	Cepheidae	A		
AUSTR	RALIA	2016 March 1 (Items Starting with Sar	ne Letter) (Horiz strip/5 &	& Bklt)		
4454	\$1	Surf, surfboard, sand castle, starfish, sausage, shark, toy, she	ell, snail, map	S C		
4459	\$1	Like Sc#4454 (die cut 11 <sup>1</sup> / <sub>4</sub> syncopated) (s/a)		S C		
4459a		Bklt/10 (Sc#4459)				
BOSNI	A & HERZ	ZEGOVINA 2016 August 5 (Summer Sports & Rec	reation)			
768	2.50m	Stylized starfish, shell, crab, dolphins, and fish in beach sce	ne	S C		
BOSNI	A & HERZ	ZEGOVINA (Serb) 2016 October 14 (River Fauna) (Set/5)	)			
552		European Crayfish, Astacus astacus	Astacidae	A		
BHUTA	AN	2016 (Auspicious Symbols) (MS/8)				
1546g	30nu	Indian Chank Shell, Turbinella pyrum	Turbinellidae	A		
CHRIS	TMAS ISL	<b>2016 October 31</b> (Christmas) (SS/2)				
553a		Bot: Stylized Crabs		SZ		
DJIBO	_	<b>2016 June 6</b> (Shells)				
1034a		Red Helmet Shell, Cypraecassis rufa	Cassidae	A		
1034b		Triton's Trumpet, <i>Charonia tritonis</i>	Ranellidae	A		
1034c		a Top Shell, Trochus nodulosus	Trochidae	A		
1034d	260fr	Ermine Cone, Conus mustelinus	Conidae	A		
1053	SS 960fr	Spider Conch, Lambis lambis	Strombidae	A		
	Margin	1	Littorinidae	Z		
		Ctr & R: Common Periwinkle, <i>Littorina littorea</i>	Littorinidae	$\mathbf{Z}$		
		R: Triton's Trumpet, <i>Charonia tritonis</i>	Ranellidae	Z		
<b>FAROE ISLANDS</b> 2016 September 26 (Life of Jesus Woodcarvings) (MS/10)						
671d	9k	Stylized Shell at Baptism of Jesus		S C		
FRANC	C <b>E</b>	2016 July 2 (Summer Vacation) (Bklt/	12)			
5057	(70c)	Stylized Crab (biting swimmer)		S B		
5061	(70c)	Stylized Marine Life (on plate of food)		S B		
5064a		Bklt/12 (Sc#5053–64)				
2016 July 9 (Mediterranean Sea Fish)						
5065	€1	Stylized Jellyfish (with fish)		S C		
<b>2016 September 3</b> (Animal Proverbs & Idioms) (Bklt/12)						
5081	(70c)	Avoir des oursins dans le porte-monnaie (Having sea urchin	, ,	S B		
5090a	, ,	Bklt/12 (Sc#5079–90)	• •			

ICELAND 1410 (240k)		<b>2016 April 28</b> (Europa) (Set/2 & Bklt/10) Stylized Lobster, Shrimp, & Starfish silhouettes (perf 13 <sup>1</sup> / <sub>4</sub> )		S C
1412	(240k)	Stylized Lobster, Shrimp, & Starfish silhouettes (die cut 15½×1	5) (s/a)	SC
1412a	(2 lok)	Bklt/10 (Sc#1412)	5) (5/ <b>u</b> )	БС
		2016 September 16 (Basket Star) (s/a)		
1414	(160k)		Gorgonocephalidae	U A
1415	(200c)	a Basket Star, Gorgonocephalus sp.	Gorgonocephalidae	U A
LIECHE 1688	ENSTEIN 2fr	<b>2016 June 6</b> (17th Century Gold & Silver l Turbo Shell cup design	(tems) (Set/3)	S
		1 0	. 0 00/1)	S
<b>MALAY</b> 1571a		<b>2015 November 17</b> (Islands) (2ea Horiz Pa Coral reef (with sea turtle & beach) (Palau Tenggol)	ur & SS/1)	UВ
1571a 1571b		Numerous U/I Corals in reef (Palau Tinggi)		UВ
15710 1572a		Numerous U/I Corals in reef (Palau Sembilang)		UB
1572b		Coral reef (with reef fish) (Palau Satang)		UB
1573		Numerous U/I Corals in reef		U B
MALDI	VE ISLAN	NDS 2014 April 1 (Octopi) (MS/4 & SS/1)		
3143a		Big Blue Octopus, Octopus cyanea	Octopodidae	A
3143b		Common Octopus, Octopus vulgaris	Octopodidae	A
3143c		Ornate Octopus, Octopus ornatus	Octopodidae	Α
3143d		Southern Sand Octopus, Octopus kaurna	Octopodidae	Α
3153	SS 60r	* •	Octopodidae	A
	Margin	UR: White-spotted Octopus, Callistoctopus macropus	Octopodidae	Z
		LR: Common Octopus, Octopus vulgaris	Octopodidae	Z
		<b>2014 April 1</b> (Crustaceans) (MS/4 & SS/1)		
3144a	20r	a Crab, Carpilius convexus	Carpiliidae	Α
3144b	20r	Pacific Cleaner Shrimp, Lysmata amboinensis	Hippolytidae	A
3144c		Ornate Rock Lobster, Panulirus ornatus	Palinuridae	A
3144d		Candy Crab, Hoplophrys oatesi	Epialtidae	A
3154	SS 60r	1 1	Palaemonidae	A
	Margin	UR: Giant Tiger Prawn, Penaeus monodon	Penaeidae	Z
		MR: Japanese Goose Barnacle, Capitulum mitella	Pollicipedidae	Z
		LR: Light-blue Soldier Crab, Mictyris longicarpus	Mictyridae	Z
		LL: a Barnacle, Megabalanus tintinnabulum	Balanidae	Z
		<b>2014 April 1</b> (Deep Water Creatures) (MS/	•	
3150a		an Annelid Tube Worm, Serpula sp.	Serpulidae	A
3150d		Giant Isopod, Bathynomus giganteus	Cirolanidae	A
3160	Margin	Ctr: U/I Brittle Star	Ophiuroidea	Z
		<b>2014 April 1</b> (Jellyfish) (MS/4 & SS/1)		
3151a	22r	Atolla Jellyfish, Atolla wyvillei	Atollidae	A
3151b	22r	Sea Wasp, <i>Chironex fleckeri</i> (♣)	Chirodropidae	A
3151c	22r	a Box Jellyfish, Copula (=Carybdea) sivickisi	Tripedaliidae	A
3151d	22r	Spotted Jellyfish, Mastigias papua	Mastigiidae	A
3161	SS 70r	Sea Nettle, Chrysaora quinquecirrha (also in LR margin)	Pelagiidae	ΑZ
		2014 December 15 (Water Birds & Corals)		
3263a		Stony Cup Coral, Dendrophyllia sp.	Dendrophylliidae	U B
3263b	20r	Bubble Coral, Plerogyra sinuosa	Caryophylliidae	В
3263c	20r	a Staghorn Coral, Acropora robusta	Acroporidae	В
3263d	20r	Open Brain Coral, Trachyphyllia geoffroyi	Trachyphylliidae	В

MALDI	VE ISLA	NDS (continued)			
3273		a Staghorn Coral, Acropora sp.	Acroporidae	A	
	Margin	Bot: Broad Sea Fan, Eunicella verrucosa	Gorgoniidae	Z	
		LL: U/I Coral (in reef)		UZ	
		2014 December 15 (Seabirds & Shells) (N	/IS/4 & SS/1)		
3266a	22r	Crowned Baler, Melo aethiopica	Volutidae	В	
3266b	22r	Sharp Toothed Heart Cockle, Acrosterigma dupuchensis	Cardiidae	В	
3266c	22r	Heavy Bonnet, Casmaria ponderosa ponderosa	Cassidae	В	
3266d	22r	Major Harp, Harpa major	Harpidae	В	
3276	SS 70r	Giant Clam, Tridacna gigas	Cardiidae	В	
	Margin	LL: Various U/I Shells		UZ	
MAURI	ΓIUS	<b>2016 June 6</b> (Freshwater Fauna) (Set/4)			
1151	10r	Water Scorpion, Laccotrephes annulipes	Nepidae	A	
1153	32r	Freshwater Shrimp, Macrobrachium lar	Palaemonidae	A	
MONAC	CO	<b>2015 February 25</b> (Jellyfish) (SS/2)			
2791a	€1	Floating Bell, <i>Phyllorhiza punctata</i> (also in Top margin)	Mastigiidae	AZ	
2791b	€1	Mauve Stinger, Pelagia noctiluca	Pelagiidae	A	
NEVIS		2016 January 28 (Caribbean Seashells) (N	MS/4 & SS/1)		
1900a	\$4	King Venus, Chione paphia	Veneridae	A	
1900b			Mactridae	A	
1900c	\$4	Sunrise Tellin, <i>Tellina radiata</i>	Tellinidae	A	
1900d	\$4	Calico Clam, Macrocallista maculata	Veneridae	A	
1900	Margin	UR: U/I Starfish		UΖ	
	_	UL & LR: Various U/I Shells		UΖ	
1901	SS \$10	Royal Comb Venus, Pitar dione	Veneridae	A	
	Margin	UR: U/I Starfish		UΖ	
		UL & LR: U/I Shells		UΖ	
NEW CA	ALEDON	IA 2016 June 10 (Engraved Shell)			
1210	175fr	U/I Shell (engraved by convict)		U A	
		2016 June 10 (Natural Park of the Coral S	lea)		
1212	110fr	U/I Corals (with turtle, whale, & fish)	·	U B	
PANAM	$\mathbf{A}$	2015 December 1 (Surcharges)			
		Star Coral, <i>Montastrea annularis</i> (Sc#902a surch)	Faviidae	A	
		Lettuce Coral, Pavona chiriquiensis (Sc#902b surch)	Agariciidae	A	
ST. THOMAS & PRINCE ISLANDS 2014 September 15 (Shells) (MS/4 & SS/1)					
2722a		Rough Scallop, Lindapecten muscosus	Pectinidae	A	
2722b	25000d	U/I Conch	Strombidae	UA	
2722c	25000d	U/I Moon Snail	Naticidae	U A	
2722d	25000d	Juno's Volute, Scaphella junonia	Volutidae	A	
	Margin	Top: Common Periwinkle, Littorina littorea	Littorinidae	Z	
2742 S	S 96000d	Chambered Nautilus, Nautilus pompilius	Nautilidae	A	
	Margin	R: U/I Conch	Strombidae	UZ	
<b>2014 October 15</b> (Corals) (MS/4 & SS/1)					
2766a	25000d	Leaf Plate Montipora, Montipora capricornis	Acroporidae	A	
2766b	25000d	Pacific Rose Coral, Wellsophyllia radiata	Merulinidae	A	
2766c	25000d	Deepwater Sea Fan, Iciligorgia schrammi	Anthothelidae	A	
2766d	25000d	a Brain Coral, Anacropora puertogalerae	Acroporidae	A	

ST TH	IOMAS & 1	PRINCE ISLANDS (continued)			
		Fox Coral, Nemenzophyllia turbida	Caryophyllidae	A	
2700		R: Sun Coral, Tubastraea aurea	Dendrophylliidae	Z	
	wargin			L	
		<b>2014 November 17</b> (Venomous Animals)	·		
2810d		Marbled Cone, <i>Conus marmoreus</i> (♣)	Conidae	A	
2827		Greater Blue-ringed Octopus, <i>Hapalochlaena lunulata</i> (♣)	Octopodidae	A	
	Margin	UR: Irukandji Jellyfish, <i>Carukia barnesi</i> (♣)	Carukiidae	Z	
		LR: Sea Wasp, Chironex fleckeri (\$\\$)	Chirodropidae	Z	
		2015 September 23 (Painting)			
2945	SS 96000d	Stylized Shell in painting "Birth of Venus" by Botticelli		SZ	
		<b>2015 November 18</b> (Shells) (MS/4 & SS/1	.)		
2969a	31000d	Chambered Nautilus, Nautilus pompilius	Nautilidae	A	
2969b	31000d	Florida Fighting Conch, Strombus alatus gmelin	Strombidae	A	
2969c	31000d	Da Marcoi's Volute, Voluta polypleura	Volutidae	A	
2969d		Chiragra Spider Conch, Lambis chiragra arthritica	Strombidae	A	
		Bot: Spider Conch, Lambis lambis	Strombidae	Z	
2988	SS 96000d	Red-lined Bubble Snail, Bullina lineata	Bullinidae	A	
	Margin	UL: U/I Octopus		UΖ	
	C	UR: U/I Jellyfish		UΖ	
		MR: Bullmouth, Cypraecassis rufa	Cassidae	Z	
		LR: U/I Shell		UΖ	
		Bot: U/I Sea Urchin shells		UZ	
ST. VI	NCENT	2015 December 31 (Coral Reefs) (MS/6, N	MS/4 & 2ea SS/1)		
4037a	\$3.15	Various U/I Corals (in reef scene)	115/ 1, & 200 55/ 1)	U A	
4037b	\$3.15	Various U/I Corals (in reef scene)		UA	
4037c	\$3.15	Various U/I Corals (in reef scene)		UA	
4037d	\$3.15	Various U/I Corals (in reef scene)		UA	
4037e	\$3.15	Various U/I Corals (in reef scene)		UA	
4037f	\$3.15	Various U/I Corals (in reef scene)		U A	
4038a	\$3.25	Various U/I Corals (in reef scene)		U A	
4038b	\$3.25	Various U/I Corals (in reef scene)		UA	
4038c	\$3.25	Various U/I Corals (in reef scene)		U A	
4038d	\$3.25	Various U/I Corals (in reef scene)		UA	
4039	SS \$10	Various U/I Corals (with yellow reef fish) (also in margin)		UAZ	
4040	SS \$10	Various U/I Corals (with small reef fish) (also in margin)		UAZ	
SLOVENIA 2016 March 25 (2016 Collecta International Collectors Fair) (SS/1)					
1167		U/I Shells (with coins, marbles, books, stamps, etc.)	con <b>c</b> tors 1) (2	SC	
SOLO	MON ISLA	NDS 2015 June 26 (Seashells) (MS/4 & SS/1)			
1817a	\$12	an Ark Shell, Tegillarca nodifera	Arcidae	A	
1817b	\$12	Ventral Harp, <i>Harpa cabriti</i>	Harpidae	A	
1817c	\$12	Common Triton Snail, Gyrineum natator	Ranellidae	A	
1817d	\$12	Spiral Babylonia Snail, Babylonia spirata	Babyloniidae	A	
1837	SS \$40	Tropical Periwinkle, <i>Planaxis sulcatus</i>	Planaxidae	A	
1001	Margin	MR: a Sea Snail, Amalda vernedei herlaari	Olividae	Z	
		ML: Spurred Turban, Astralium calcar (Cap: Astreae calcar)	Turbinidae	Z	
		LR: Lathe Acteon, Acteon tornatilis	Acteonidae	Z	
		Bot: a Hermit Crab, <i>Dardanus calidus</i>	Diogenidae	Z	
				_	

SOLOM	ON ISLA	NDS (continued) 2016 May 13 (Corals, Jellyfish, Shells)		
1990a		Grooved Brain Coral, Diploria labyrinthiformis	Faviidae	A
1990b	\$7	Elkhorn Coral, Acropora palmata	Acroporidae	A
1990c	\$7	Pillar Coral, Dendrogyra cylindrus	Meandrinidae	A
1990d	\$7	Honeycomb Coral, Diploastrea heliopora	Diploastreidae	A
2015	SS \$35	Candy Cane Coral, Caulastrea furcata	Merulinidae	A
	Margin	Top: Elkhorn Coral, Acropora palmata	Acroporidae	Z
1991a	\$7	Pacific Sea Nettle, Chrysaora fuscescens	Pelagiidae	A
1991b	\$7	Floating Bell, <i>Phyllorhiza punctata</i>	Mastigiidae	A
1991c	\$7	Moon Jellyfish, Aurelia labiata	Ulmaridae	A
1991d	\$7	Barrel Jellyfish, Rhizostoma pulmo	Rhizostomatidae	A
2016	SS \$35	Sea Nettle, Chrysaora furcata (Cap: Chrysaora fuscescens)	Pelagiidae	A
	Margin	Top: Black Sea Nettle, Chrysaora achlyos	Pelagiidae	$\mathbf{Z}$
1992a	\$7	King Helmet, Cassis tuberosa	Cassidae	A
1992b	\$7	Crowned Baler, Melo aethiopica	Volutidae	A
1992c	\$7	Fighting Conch, Strombus pugilis	Strombidae	A
1992d	\$7	Apple Murex, Phyllonotus pomum	Muricidae	A
2017	SS \$35	Chambered Nautilus, Nautilus pompilius	Nautilidae	A
	Margin	Top: Florida horse conch, Triplofusus giganteus	Fasciolariidae	Z
S. GEORGIA & S. SANDWICH IS. 2015 December 21 (Biodiversity) (Set/6)				
C8	(70p)	U/I Sea Spider	Class: Pycnogonida	U A
<b>SPAIN</b>		<b>2016 April 25</b> (Way of St. James)		
4122	(€1.15)	Stylized Shell		S C
SRI LAN	SRI LANKA 2016 May 27 (50th anniv. Sri Lanka Tourism)			
2025	15r	Stylized Shell silhouettes (tiny)	,	S C
TOKEL	ΑU	2016 October 5 (Tokelau Language Week)	(Set/4 & SS/4)	
462		Coconut Crab, Birgus latro	Coenobitidae	A
464a		SS/4 (Sc#461–64)		
UNITED	STATES	2016 August 2 (Pets) (Bklt/20)		
5118		U/I Hermit Crab		UΑ
5125a		Bklt/20 (Sc#5106–25)		
URUGUAY 2014 June 5 (Wetlands Fauna) (MS/10+3 labels)				
2514i		a Crab, Neohelice granulata	Varunidae	A

### PREHISTORIC SPIDER

The term "Fake News" is much in the media today. At its extreme, these stories are deliberately published hoaxes, propaganda, and disinformation. However, there are more subtle types of false reporting that may, or may not, be deliberate. It seems that many persons today do not possess a reasonable amount of skepticism, or even common sense, to question the elements of news articles, especially those on the Internet.

This story is an example of the latter type of article. It originally appeared on the Yahoo News website on 8 October 2012 (http://news.yahoo.com/100-million-old-spider-attack-found-amber-193233281.html).



Researchers have found trapped in amber a rare dinosaur-age scene of a spider attacking a wasp caught in its web. The piece of amber, which contains 15 intact strands of spider silk, provides the first fossil evidence of such an assault, the researchers said. It was excavated in a Burmese mine and dates back to the Early Cretaceous, between 97 million and 110 million years ago.

"This juvenile spider was going to make a meal out of a tiny parasitic wasp, but never quite got to it," George Poinar, Jr., a zoology professor at Oregon State University, said in a statement.

"This was a male wasp that suddenly found itself trapped in a spider web. This was the wasp's worst nightmare, and it never ended. The wasp was watching the spider just as it was about to be attacked, when tree resin flowed over and captured both of them."

Poinar and Ron Buckley, an amber collector from Kentucky, described the find in a paper published in the October issue of the journal *Historical Biology*. They wrote that while there are examples of amber-trapped insects caught in webs, "there is no previous fossil record of a spider attacking its ensnared prey."

The amber chunk also contains the body of another male spider in the same web, which might make the fossil the oldest known evidence of social behavior in spiders, according to the authors.

Both the spider and wasp species are today extinct. But the type of wasp (*Cascoscelio incassus*) belongs to a group that today is known to parasitize spider eggs, Poinor said. The attack on the wasp by the bristly orb-weaver spider, *Geratonephila burmanica*, might then be considered revenge.

I sent a copy of this article to Dr. Beatrice Vogel, one of our Unit members. Dr. Vogel is a retired arachnologist and the founder and first President of the American Arachnological Society. This is her response:

"Thanks for the info. The object was interesting, but the sensational style of writing is gratuitous, and 'Attack' is entirely uncalled for. Spiders in amber are quite common and quite a few people have a small collection of them. I even have one."

Dr. Vogel also forwarded to me a response she received from one of her colleagues, Dr. Paul Selden. Dr. Selden is the Gulf-Hedberg Distinguished Professor of Invertebrate Paleontology at the University of Kansas and past-President of the International Society of Arachnology.

"In any amber find, the null hypothesis is always that the associations observed are fortuitous, and I don't find that the authors have made a very convincing case for rejecting that hypothesis. The wasp and the spider could have been caught in the resin hours, days, or even weeks apart, or by separate resin flows from a wound in the tree. The facts that they are close to one another and that there is a lot of silk in the inclusion really proves nothing, nor does the presence of a male spider in the same inclusion show anything about 'social behavior.' To me, a classic case of over-interpretation that reviewers should have caught."

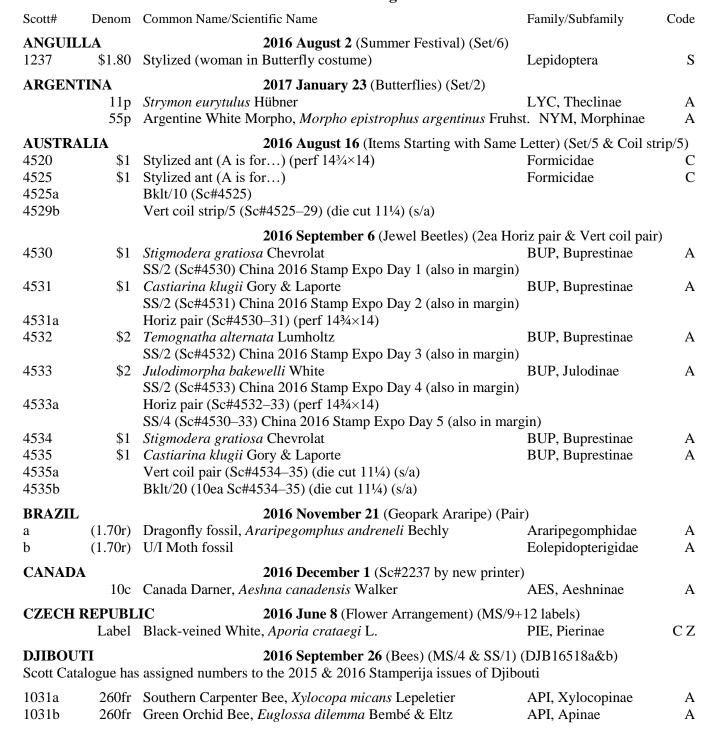


### **ENTOMOLOGY**



## Donald P. Wright, Jr., BU243 and José Reis

#### **New Listings**



<b>DJIBO</b>	UTI (contir	nued)		
1031c	•	European Wool-Carder Bee, Anthidium manicatum L.	MEG, Megachilinae	A
1031d	260fr	Augochlorella aurata Smith	HAL, Halictinae	A
	Margin	Top: Western Honeybee, Apis mellifera L.	API, Apinae	$\mathbf{Z}$
1050	SS 960fr	Ashy or Gray Mining Bee, Andrena cineraria L.	AND, Andreninae	Α
	Margin	UL & LR: Western Honeybee, Apis mellifera L.	API, Apinae	Z
		UR: Neon Cuckoo Bee, Thyreus nitidulus Fabr.	API, Xylocopinae	Z
		2016 September 26 (Butterflies) (MS/4 &	SS/1) (DJB16514a&b)	
1032a	260fr	Meadow Blue, Cupidopsis cissus Godart	LYC, Polyommatinae	A
1032b		Cream-striped Swordtail, Graphium porthaon Hewitson	PAP, Papilioninae	A
1032c	260fr	Figtree Blue, Myrina silenus Fabr.	LYC, Theclinae	A
1032d	260fr	Dotted Blue, Tarucus sybaris Hopffer	LYC, Polyommatinae	A
1051	SS 960fr	LR: Figtree Blue, Myrina silenus ficedula Trimen	LYC, Theclinae	В
		UL: Meadow Blue, Cupidopsis cissus Godart	LYC, Polyommatinae	В
	Margin	UL: Cream-striped Swordtail, Graphium porthaon Hewitson	PAP, Papilioninae	Z
		Top: African Monarch, Danaus chrysippus L.	NYM, Danainae	$\mathbf{Z}$
		UR: Large Glasswing, Ornipholidotos peucetia Hewitson	LYC, Poritiinae	Z
		LR: Large Vagrant, Nepheronia argia Fabr.	PIE, Pierinae	Z
ESTON	NIA	<b>2016 September 8</b> (Mushroom)		
	65c	U/I ant (with Fly Agaric mushroom)	Formicidae	UC
FRANC	~ <b>F</b>	<b>2016 July 2</b> (Summer Vacation) (Bklt/12)		
5064		Stylized butterfly (beach scene with feet, sandal, nail polish)	Lepidoptera	SB
FR. SO	UTHERN	& ANTARCTIC TERR 2016 January 2 (Wingless Moth)		
536	80c	Pringleophaga crozetensis Enderlein	Tineidae, Tineinae	A
		<b>2017 January 2</b> (Insects)		
	80c	<b>2017 January 2</b> (Insects) <i>Telmatogeton amphibius</i> Eaton (Cap: <i>Halirythus a.</i> )  Chiron	omidae, Telmatogetonin	ae A
		· · · · · · · · · · · · · · · · · · ·	omidae, Telmatogetonin Ephydridae, Ephydrina	
GREA'	€1.55	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton	Ephydridae, Ephydrina	
GREAT	€1.55 <b>I BRITAIN</b>	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6)	Ephydridae, Ephydrina	e A
	€1.55 <b>Г BRITAIN</b> 48р	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings	Ephydridae, Ephydrina	
HONG	€1.55 <b>F BRITAIN</b> 48p <b>KONG</b>	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)	Ephydridae, Ephydrina ) PAP, Papilioninae	e A
<b>HONG</b> 1760	€1.55 <b>F BRITAIN</b> 48p <b>KONG</b>	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.	Ephydridae, Ephydrina	e A
HONG	€1.55 <b>I BRITAIN</b> 48p <b>KONG</b> \$50	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.  2017 January 25 (Nature: India) (SS/6)	Ephydridae, Ephydrina  PAP, Papilioninae  Bombycidae	e A S
<b>HONG</b> 1760	€1.55 <b>I BRITAIN</b> 48p <b>KONG</b> \$50	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.	Ephydridae, Ephydrina ) PAP, Papilioninae	e A S
HONG 1760 INDIA e	€1.55 <b>I BRITAIN</b> 48p <b>KONG</b> \$50	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.  2017 January 25 (Nature: India) (SS/6)	Ephydridae, Ephydrina  PAP, Papilioninae  Bombycidae  NYM, Heliconiinae	e A S R
HONG 1760 INDIA e	€1.55 <b>I BRITAIN</b> 48p <b>KONG</b> \$50  5r <b>YZSTAN</b>	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.  2017 January 25 (Nature: India) (SS/6)  Eastern Red Lacewing, Cethosia cydippe L.	Ephydridae, Ephydrina  PAP, Papilioninae  Bombycidae  NYM, Heliconiinae	e A S R A
HONG 1760 INDIA e KYRG	€1.55 <b>I BRITAIN</b> 48p <b>KONG</b> \$50  5r <b>YZSTAN</b>	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.  2017 January 25 (Nature: India) (SS/6)  Eastern Red Lacewing, Cethosia cydippe L.  2016 July 29 (Flora of Kyrgyzstan) (MS/4)	Ephydridae, Ephydrina  PAP, Papilioninae  Bombycidae  NYM, Heliconiinae	e A S R
HONG 1760 INDIA e KYRG	€1.55  I BRITAIN 48p  KONG \$50  5r  YZSTAN 50s	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.  2017 January 25 (Nature: India) (SS/6)  Eastern Red Lacewing, Cethosia cydippe L.  2016 July 29 (Flora of Kyrgyzstan) (MS/4)  Dragonfly	Ephydridae, Ephydrina  PAP, Papilioninae  Bombycidae  NYM, Heliconiinae  Odonata	e A S R A
HONG 1760 INDIA e KYRG a b	€1.55  I BRITAIN 48p  KONG \$50  5r  YZSTAN 50s 50s	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.  2017 January 25 (Nature: India) (SS/6)  Eastern Red Lacewing, Cethosia cydippe L.  2016 July 29 (Flora of Kyrgyzstan) (MS/4)  Dragonfly  Bombus sp.	Ephydridae, Ephydrinae  PAP, Papilioninae  Bombycidae  NYM, Heliconiinae  Odonata API, Apinae	e A S R A UB UB
HONG 1760 INDIA e KYRG a b c	€1.55  I BRITAIN 48p  KONG \$50  5r  YZSTAN 50s 50s 100s 100s	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.  2017 January 25 (Nature: India) (SS/6)  Eastern Red Lacewing, Cethosia cydippe L.  2016 July 29 (Flora of Kyrgyzstan) (MS/4)  Dragonfly  Bombus sp.  Blue Morpho, Morpho menelaus L., ♀	Ephydridae, Ephydrinae  PAP, Papilioninae  Bombycidae  NYM, Heliconiinae  Odonata API, Apinae NYM, Morphinae NYM, Heliconiinae	e A S R A UB UB B
HONG 1760 INDIA e KYRG a b c d	€1.55  I BRITAIN 48p  KONG \$50  5r  YZSTAN 50s 50s 100s 100s	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.  2017 January 25 (Nature: India) (SS/6)  Eastern Red Lacewing, Cethosia cydippe L.  2016 July 29 (Flora of Kyrgyzstan) (MS/4)  Dragonfly  Bombus sp.  Blue Morpho, Morpho menelaus L., ♀  Speyeria sp.	Ephydridae, Ephydrinae  PAP, Papilioninae  Bombycidae  NYM, Heliconiinae  Odonata API, Apinae NYM, Morphinae NYM, Heliconiinae	e A S R A UB UB B
HONG 1760 INDIA e KYRG a b c d	€1.55  I BRITAIN 48p  KONG \$50  5r  YZSTAN 50s 50s 100s 100s	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.  2017 January 25 (Nature: India) (SS/6)  Eastern Red Lacewing, Cethosia cydippe L.  2016 July 29 (Flora of Kyrgyzstan) (MS/4)  Dragonfly  Bombus sp.  Blue Morpho, Morpho menelaus L., ♀  Speyeria sp.  2016 March 7 (Flowers) (3ea Vert Pairs &	Ephydridae, Ephydrinae  PAP, Papilioninae  Bombycidae  NYM, Heliconiinae  Odonata API, Apinae NYM, Morphinae NYM, Heliconiinae  SS/1)	e A S R A UB UB B
HONG 1760 INDIA e KYRG a b c d MALA 1593b	€1.55  I BRITAIN 48p  KONG \$50  5r  YZSTAN 50s 50s 100s 100s 170s	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.  2017 January 25 (Nature: India) (SS/6)  Eastern Red Lacewing, Cethosia cydippe L.  2016 July 29 (Flora of Kyrgyzstan) (MS/4)  Dragonfly  Bombus sp.  Blue Morpho, Morpho menelaus L., ♀  Speyeria sp.  2016 March 7 (Flowers) (3ea Vert Pairs & U/I insects on Bread Flowers	Ephydridae, Ephydrinae  PAP, Papilioninae  Bombycidae  NYM, Heliconiinae  Odonata API, Apinae NYM, Morphinae NYM, Heliconiinae  SS/1) Insecta	e A S R A UB UB B UB
HONG 1760 INDIA e KYRG a b c d MALA 1593b 1594a	€1.55  I BRITAIN 48p  KONG \$50  5r  YZSTAN 50s 50s 100s 100s 100s YSIA 70s 80s	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.  2017 January 25 (Nature: India) (SS/6)  Eastern Red Lacewing, Cethosia cydippe L.  2016 July 29 (Flora of Kyrgyzstan) (MS/4)  Dragonfly  Bombus sp.  Blue Morpho, Morpho menelaus L., ♀  Speyeria sp.  2016 March 7 (Flowers) (3ea Vert Pairs & U/I insects on Bread Flowers  U/I Swallowtail on Yellow Saraca flowers	Ephydridae, Ephydrinae  PAP, Papilioninae  Bombycidae  NYM, Heliconiinae  Odonata API, Apinae NYM, Morphinae NYM, Heliconiinae  SS/1) Insecta PAP, Papilioninae	e A S R A UB UB UB UB
HONG 1760 INDIA e KYRG a b c d MALA 1593b 1594a 1594b	€1.55  I BRITAIN 48p  KONG \$50  5r  YZSTAN 50s 50s 100s 100s 100s 480s 80s 80s	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.  2017 January 25 (Nature: India) (SS/6)  Eastern Red Lacewing, Cethosia cydippe L.  2016 July 29 (Flora of Kyrgyzstan) (MS/4)  Dragonfly  Bombus sp.  Blue Morpho, Morpho menelaus L., ♀  Speyeria sp.  2016 March 7 (Flowers) (3ea Vert Pairs & U/I insects on Bread Flowers  U/I Swallowtail on Yellow Saraca flowers  Monarch, Danaus plexippus  U/I bees at R on Cannonball Flowers  U/I bees at L on Cannonball Flowers	Ephydridae, Ephydrinae  PAP, Papilioninae  Bombycidae  NYM, Heliconiinae  Odonata API, Apinae NYM, Morphinae NYM, Heliconiinae  SS/1) Insecta PAP, Papilioninae NYM, Danainae	e A S R A UB B UB B UB B
HONG 1760 INDIA e KYRG a b c d MALA 1593b 1594a 1594b 1595a	€1.55  I BRITAIN 48p  KONG \$50  5r  YZSTAN 50s 50s 100s 100s 100s 480s 80s 80s 80s	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.  2017 January 25 (Nature: India) (SS/6)  Eastern Red Lacewing, Cethosia cydippe L.  2016 July 29 (Flora of Kyrgyzstan) (MS/4)  Dragonfly  Bombus sp.  Blue Morpho, Morpho menelaus L., \$\bigce\$ Speyeria sp.  2016 March 7 (Flowers) (3ea Vert Pairs & U/I insects on Bread Flowers  U/I Swallowtail on Yellow Saraca flowers  Monarch, Danaus plexippus  U/I bees at R on Cannonball Flowers	Ephydridae, Ephydrinae  PAP, Papilioninae  Bombycidae  NYM, Heliconiinae  Odonata API, Apinae NYM, Morphinae NYM, Heliconiinae  SS/1) Insecta PAP, Papilioninae NYM, Danainae Apidae	e A S R A UB B UB UB
HONG 1760 INDIA e KYRG a b c d MALA 1593b 1594a 1594b 1595a 1595b	€1.55  I BRITAIN 48p  KONG \$50  5r  YZSTAN 50s 50s 100s 100s 100s  YSIA  70s 80s 80s 80s 80s 80s	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.  2017 January 25 (Nature: India) (SS/6)  Eastern Red Lacewing, Cethosia cydippe L.  2016 July 29 (Flora of Kyrgyzstan) (MS/4)  Dragonfly  Bombus sp.  Blue Morpho, Morpho menelaus L., ♀  Speyeria sp.  2016 March 7 (Flowers) (3ea Vert Pairs & U/I insects on Bread Flowers  U/I Swallowtail on Yellow Saraca flowers  Monarch, Danaus plexippus  U/I bees at R on Cannonball Flowers  U/I sp. with Jasmine	Ephydridae, Ephydrinae  PAP, Papilioninae  Bombycidae  NYM, Heliconiinae  Odonata API, Apinae NYM, Morphinae NYM, Heliconiinae  SS/1) Insecta PAP, Papilioninae NYM, Danainae Apidae Apidae Apidae	e A S R A UB UB B UB UB
HONG 1760 INDIA e KYRG a b c d MALA 1593b 1594a 1594b 1595a 1595b	€1.55  I BRITAIN 48p  KONG \$50  5r  YZSTAN 50s 50s 100s 100s 100s  YSIA  70s 80s 80s 80s 80s 80s \$55	Telmatogeton amphibius Eaton (Cap: Halirythus a.) Chiron Amalopteryx maritima Eaton  N (Jersey) 2016 October 6 (Myths & Legends) (Set/6) Fairy with stylized Swallowtail wings  2016 January 16 (Year of the Monkey)  Printed on Italian silk from Silkworm, Bombyx mori L.  2017 January 25 (Nature: India) (SS/6)  Eastern Red Lacewing, Cethosia cydippe L.  2016 July 29 (Flora of Kyrgyzstan) (MS/4)  Dragonfly  Bombus sp.  Blue Morpho, Morpho menelaus L., ♀  Speyeria sp.  2016 March 7 (Flowers) (3ea Vert Pairs & U/I insects on Bread Flowers  U/I Swallowtail on Yellow Saraca flowers  Monarch, Danaus plexippus  U/I bees at R on Cannonball Flowers  U/I bees at L on Cannonball Flowers	Ephydridae, Ephydrinae  PAP, Papilioninae  Bombycidae  NYM, Heliconiinae  Odonata API, Apinae NYM, Morphinae NYM, Heliconiinae  SS/1) Insecta PAP, Papilioninae NYM, Danainae Apidae Apidae Apidae	e A S R A UB UB B UB UB

MALAYSIA (con 1620 50s	tinued) <b>2016 October 1</b> (International Definitives) Rajah Brooke's Birdwing, <i>Troides brookiana</i> Wallace	(Set/8) PAP, Papilioninae	В	
MARSHALL ISI 1136e 49c	ANDS 2016 May 24 (Great Seals of US States) (Mestern Honeybee, <i>Apis mellifera</i> L. (Arkansas seal)	*	R C	
1138e 49c	<b>2016 September 2</b> (Great Seals of US State Western Honeybee, <i>Apis mellifera</i> L. & hive (Utah seal)	es) (MS/10) API, Apinae	C	
NEPAL Each of these MS	<b>2014 December 9</b> (Moths) (3ea MS/4) (Neshows a small silhouette of the following species in the emblem of	•		
960–62 Margin	LR: Great Mormon, Papilio memnon L.	PAP, Papilioninae	CZ	
<b>2016</b> (Beetles) (Set/4) Each stamp shows a small silhouette of a Great Mormon in the emblem of the museum.				
20r	Dorcus nepalensis Hope, ♂ Yellow-Banded Blister Beetle, Mylabris phalerata Pallas Golden Stag Beetle, Odontolabis cuvera Hope, ♀ Therates nepalensis Probst & Wiesner	LUC, Lucaninae MEL, Meloinae LUC, Lucaninae CAR, Cicindelinae	A A A	
NETHERLANDS (78c)	• • • • • • • • • • • • • • • • • • • •	LYC, Polyommatinae	A	
<b>OMAN</b> 550 200b	2014 May 21 (Omani Philatelic Association Various earlier Omani stamps showing Butterflies (s-o-s)	on) (Set/3) Lepidoptera	C	
PITCAIRN ISLA Margin	ND 2016 (Languages of Pitcairn Island) (MS/8 UR label: U/I Dragonfly	+13 labels) Libellulidae	UZ	
111118111	,	Licentaliane	~ _	
POLAND 4239 5z	<b>2016 July 18</b> (Bees & Honey)	API, Apinae	В	
POLAND 4239 5z ST. MARTIN	2016 July 18 (Bees & Honey) Western Honeybee, <i>Apis mellifera</i> L. (with jar of honey) 2016	API, Apinae		
<b>POLAND</b> 4239 5z	2016 July 18 (Bees & Honey) Western Honeybee, Apis mellifera L. (with jar of honey)  2016 Ithomia iphianassa Doubleday UL: Small Emperor, Saturnia pavonia L. MR: Morpho sp.	API, Apinae  NYM, Danainae SAT, Saturniinae NYM, Morphinae	B A Z Z	
POLAND 4239 5z ST. MARTIN SS 500c Margin	2016 July 18 (Bees & Honey) Western Honeybee, Apis mellifera L. (with jar of honey)  2016 Ithomia iphianassa Doubleday UL: Small Emperor, Saturnia pavonia L. MR: Morpho sp. All: 14 assorted U/I moths, butterflies, & caterpillars Rothschildia cincta Tepper UL: Small Emperor, Saturnia pavonia L. LL: U/I pupa	API, Apinae  NYM, Danainae SAT, Saturniinae NYM, Morphinae Lepidoptera SAT, Saturniinae SAT, Saturniinae Sphingidae	B A Z Z Z A Z Z Z	
POLAND 4239 5z ST. MARTIN SS 500c Margin SS 500c Margin	2016 July 18 (Bees & Honey) Western Honeybee, Apis mellifera L. (with jar of honey)  2016 Ithomia iphianassa Doubleday UL: Small Emperor, Saturnia pavonia L. MR: Morpho sp. All: 14 assorted U/I moths, butterflies, & caterpillars Rothschildia cincta Tepper UL: Small Emperor, Saturnia pavonia L. LL: U/I pupa Top: Morpho sp. All: 9 assorted U/I moths, butterflies, caterpillars, & pupae Pteronymia artena Hewitson LL: Morpho sp.	API, Apinae  NYM, Danainae SAT, Saturniinae NYM, Morphinae Lepidoptera SAT, Saturniinae SAT, Saturniinae SAT, Saturniinae Sphingidae NYM, Morphinae Lepidoptera NYM, Danainae NYM, Morphinae	B A Z Z Z A Z Z Z A Z Z Z Z Z Z Z Z	
POLAND 4239 5z ST. MARTIN SS 500c Margin  SS 500c Margin  SS 500c Margin  SS 500c Margin	2016 July 18 (Bees & Honey) Western Honeybee, Apis mellifera L. (with jar of honey)  2016 Ithomia iphianassa Doubleday UL: Small Emperor, Saturnia pavonia L. MR: Morpho sp. All: 14 assorted U/I moths, butterflies, & caterpillars Rothschildia cincta Tepper UL: Small Emperor, Saturnia pavonia L. LL: U/I pupa Top: Morpho sp. All: 9 assorted U/I moths, butterflies, caterpillars, & pupae Pteronymia artena Hewitson LL: Morpho sp. All: 16 assorted U/I moths, butterflies, caterpillars, & pupae Cecropia, Robin Moth, Hyalophora cecropia L. LL: Morpho sp. All: 10 assorted U/I moths, butterflies, caterpillars & pupae	API, Apinae  NYM, Danainae SAT, Saturniinae NYM, Morphinae Lepidoptera SAT, Saturniinae SAT, Saturniinae Sphingidae NYM, Morphinae Lepidoptera NYM, Danainae NYM, Morphinae Lepidoptera SAT, Saturniinae NYM, Morphinae Lepidoptera SAT, Saturniinae NYM, Morphinae Lepidoptera	B A Z Z Z A Z Z A Z Z A Z Z Z A Z Z Z Z	
POLAND 4239 5z ST. MARTIN SS 500c Margin  SS 500c Margin  SS 500c Margin  SS 500c Margin	2016 July 18 (Bees & Honey) Western Honeybee, Apis mellifera L. (with jar of honey)  2016 Ithomia iphianassa Doubleday UL: Small Emperor, Saturnia pavonia L. MR: Morpho sp. All: 14 assorted U/I moths, butterflies, & caterpillars Rothschildia cincta Tepper UL: Small Emperor, Saturnia pavonia L. LL: U/I pupa Top: Morpho sp. All: 9 assorted U/I moths, butterflies, caterpillars, & pupae Pteronymia artena Hewitson LL: Morpho sp. All: 16 assorted U/I moths, butterflies, caterpillars, & pupae Cecropia, Robin Moth, Hyalophora cecropia L. LL: Morpho sp. All: 10 assorted U/I moths, butterflies, caterpillars & pupae Snowberry Clearwing, Hemaris diffinis Boisduval UR: Small Emperor, Saturnia pavonia L. ML: Morpho sp. Top: Hawkmoth Pupa All: 5 assorted U/I moths, butterflies, & caterpillars	API, Apinae  NYM, Danainae SAT, Saturniinae NYM, Morphinae Lepidoptera SAT, Saturniinae SAT, Saturniinae SAT, Saturniinae Sphingidae NYM, Morphinae Lepidoptera NYM, Danainae NYM, Morphinae Lepidoptera SAT, Saturniinae NYM, Morphinae	B A Z Z A Z Z A Z Z A Z Z A Z Z A Z Z A Z Z A Z	

ST. MARTI	N (cor	ntinued)		
		LR, MR, Top: Morpho sp.	NYM, Morphinae	Z
		Top: Small Emperor, Saturnia pavonia L.	SAT, Saturniinae	$\mathbf{Z}$
		All: 5 assorted U/I moths, butterflies, & caterpillars	Lepidoptera	Z
SS	500c	Dark Zebra Swallowtail, Protographium philolaus Boisduval	PAP, Papilioninae	A
M	Iargin	UL: Small Emperor, Saturnia pavonia L.,	SAT, Saturniinae	Z
		UR & MR: Morpho sp.	NYM, Morphinae	Z
		LL: U/I Hawkmoth & pupa	Sphingidae	Z
		LR: U/I Moth	SAT, Saturniinae	Z
		All: 5 assorted U/I moths, butterflies, & caterpillars	Lepidoptera	Z
	500c	Orange Kite Sw'tail, Protographium thyastes marchandii Bsdv.		A
M	Iargin	UL & Bot: Morpho sp.	NYM, Morphinae	Z
		MR: Small Emperor, Saturnia pavonia L.	SAT, Saturniinae	Z
		All: 10 assorted U/I moths, butterflies, & caterpillars	Lepidoptera	Z
SWITZERL	LAND	2016 May 12 (Europa: Environment) (Horiz	z Pair) (New data)	
1600	100c	Purple Emperor, Apatura iris L.	NYM, Apaturinae	В
TAJIKISTA	N	2014 October 3 (Mushrooms) (Set/3) (New	data)	
430		Stylized Swallowtail butterfly (with mushroom)	PAP, Papilioninae	SB
		<b>2016 September 1</b> (Turtles) (Horiz Pair)	•	
a	3 50c	L: U/I Dragonfly	Odonata	UВ
a	5.508	R: Western Honeybees, <i>Apis mellifera</i> L.	API, Apinae	В
b	3 50s	L: Western Honeybees, <i>Apis mellifera</i> L.	API, Apinae	В
Ü	2.205	R: U/I Dragonflies	Odonata	U B
TDICTAND	M CT	•		
TRISTAN D 1077		NHA 2016 July 4 (Shakespeare) (Set/4) Stylized butterfly ("A Midsummer Night's Dream")	Lepidoptera	SC
1077	<i>33</i> p		Lepidopiera	3 C
1006	<b>60</b>	2016 December 7 (Biodiversity) (Set/12)	NOC N	
1096	бОр	Gough Flightless Moth, Dimorphinoctua goughensis Fletcher	NOC, Noctuinae	Α
TURKEY		<b>2016 May 9</b> (Think Green) (Set/2)		
B315 1.40L	_+10k	7-Spotted Ladybird, Coccinella septempunctata L.	COC, Coccinellinae	C
TURKISH I	REP. N	NORTHERN CYPRUS 2016 November 24 (Bees) (Set/3)		
a		Western Honeybee, Apis mellifera L.	API, Apinae	Α
b		Western Honeybee, Apis mellifera L.	API, Apinae	A
c		Cyprus Honeybee, Apis mellifera cypria Pollman	API, Apinae	A
UNITED ST	CATES	S 2017 (Protect Pollinators) (Strip/5)		
	(49c)	Monarch, Danaus plexippus L., $\mathcal{Q}$	NYM, Danainae	A
	(49c)	Western Honeybee, <i>Apis mellifera</i> L.	API, Apinae	A
	` /	•		
		Beyond the Catalog		
CENTRAL				b)
		Euglossa variabilis Friese	API, Apinae	В
	900fr	Euglossa cognata Moure	API, Apinae	В
	900fr	Eulaema meriana Olivier	API, Apinae	В
	900fr	Euglossa mixta Friese	API, Apinae	В
	_	LR: Eulaema meriana Olivier	API, Apinae	Z
		Long-Horned Mining Bee, Eucera longicornis L.	API, Apinae	В
IVI	Iargin	LL: Euglossa asarophora Moure & Sakagami Top: Exaerete frontalis Guérin-Méneville	API, Apinae API, Apinae	
		LR: Euglossa dilemma Bembé & Eltz	API, Apinae API, Apinae	
		Discount different Delitor & Lite	, pinac	

CEN	NTRAL AFRI	CA (continued) 2016 November 21 (Butterflies) (MS/4 &	SS/1) (CA16813a&b)	
a		Papilio lorquinianus C&R Felder	PAP, Papilioninae	A
b		Cream Spot Tiger Moth, Epicallia villica L.	ARC, Arctiinae	A
c		Common Jezebel, <i>Delias eucharis</i> Drury	PIE, Pierinae	A
d		Brimstone, Gonepteryx rhamni L.	PIE, Coliadinae	A
		Eterusia repleta Walker	ZYG, Chalcosiinae	Z
	-	Peacock, Nymphalis io L.	NYM, Nymphalinae	A
		LL: Apollo, Parnassius apollo L.	PAP, Parnassiinae	Z
	C	UR: American or Small Copper, Lycaena phlaeas L.	LYC, Lycaeninae	Z
		<b>2016 December 19</b> (Mushrooms) (SS/1) (	CA16902b)	
	SS 2650fr	MR: Onitis aygulus Fabr. (with mushrooms)	SCA, Scarabaeinae	Z
GUI	INEA	<b>2016 September 26</b> (Zika Virus) (MS/4 &	z SS/1) (GU16425a&b)	
b		Yellow Fever Mosquito, Aedes aegypti L. (ultrasound testing)	CUL, Culicinae	C
c	10000fr	Same species (men fogging insecticide)	CUL, Culicinae	C
	Margin	Top: Same species	CUL, Culicinae	Z
		Yellow Fever Mosquito, Aedes aegypti L. (also in top margin)	CUL, Culicinae	C
CIII	NEA-BISSAU		\$\$/1) (GR16806a&b)	
a		Peacock, Nymphalis io L. (Cap: Aglais io)	NYM, Nymphalinae	A
b		Jana tantalus Herrich-Schaeffer	Eupterotidae, Janinae	A
c		Common Emperor, Bunaea alcinoe Stoll	SAT, Saturniinae	A
d		Red Admiral, Vanessa atalanta L.	NYM, Nymphalinae	A
e		Schaus's Crow, Euploea blossomae Schaus	NYM, Danainae	A
C		UL: Death's Head Moth, Acherontia atropos L.	SPH, Sphinginae	Z
	Margin	UR: Northern Old Lady, <i>Dasypodia cymatodes</i> Guenée	NOC, Catocalinae	Z
	SS 3000fr	Common Blue, <i>Polyommatus icarus</i> Rottemburg	LYC, Polyommatinae	A
		LL: Monarch, <i>Danaus plexippus</i> L. (with larva)	NYM, Danainae	Z
	TVIMI SIII	LR: Antanartia borbonica Oberthür	NYM, Nymphalinae	Z
		<b>2016 December 20</b> (Scouting) (MS/5 & S		
a	660fr	Golden Ground Beetle, <i>Carabus auratus</i> L.	CAR, Carabinae	В
d		Euphaedra medon L.	NYM, Limenitidinae	В
u.		LL: Blue Morpho, Morpho rhetenor Cramer	NYM, Morphinae	Z
	Margin	LR: Monarch, Danaus plexippus L.	NYM, Danainae	Z
	SS 3300fr	• • •	1 (11), Danamac	_
		MR: Blue-banded Eggfly, Hypolimnas alimena L.	NYM, Nymphalinae	Z
	J	Bot: African Giant Swallowtail, <i>Papilio antimachus</i> Drury	PAP, Papilioninae	Z
MO	ZAMBIQUE	<b>2016 July 10</b> (Bees) (MS/4 & SS/1) (MOZ	7.16304a&b)	
a	100m	Western Honeybee, <i>Apis mellifera</i> L.	API, Apinae	A
b	100m	Blue-banded Bee, <i>Amegilla cingulata</i> Fabr.	API, Apinae	A
c		Anthidium florentinum Fabr.	MEG, Megachilinae	A
d		Giant Honeybee, <i>Apis dorsata</i> Fabr.	API, Apinae	A
		Eastern Carpenter Bee, <i>Xylocopa virginica</i> L.	API, Xylocopinae	A
		R: Blue-banded Bee, <i>Amegilla cingulata</i> Fabr.	API, Apinae	Z
	<u>8</u>	2016 August 10 (Butterflies) (MS/4 & SS	•	_
a	100m	Brown-Veined White, <i>Belenois aurota</i> Fabr.	PIE, Pierinae	A
b		Belenois aurota Fabr., different	PIE, Pierinae	A
c		Pearl Charaxes, <i>Charaxes varanes</i> Cramer	NYM, Charaxinae	A
d		Grass Blue, Chilades trochylus Freyer	LYC, Polyommatinae	A
		· · · · · · · · · · · · · · · · · · ·	•	

MOZAMBIQUE (	(continued)		
SS 350m	Painted Lady, Vanessa cardui L.	NYM, Nymphalinae	A
Margin	LL & UR: U/I butterfly	LYC, Polyommatinae	UZ
	MR: U/I larva	NYM, Nymphalinae	UZ
	LR: Green-banded Swallowtail, <i>Papilio nireus</i> L.	PAP, Papilioninae	$\mathbf{Z}$
	<b>2016 August 10</b> (Orchids) (MS/4 & SS/1) (	MOZ16417a&b)	
4×100m	Top: Monarch, Danaus plexippus L. (4ea)	NYM, Danainae	Z
SS 350m	Top: Monarch, Danaus plexippus L. (4ea)	NYM, Danainae	Z
	<b>2016 August 10</b> (s-o-s) (MS/4 & SS/1) (MC	)716422a&b)	
a 100m	Dark Palm Forester, <i>Bebearia mardania</i> Fabr. (Burundi Sc#616)		В
	Large Emperor, <i>Saturnia pyri</i> D. & S. (Yugoslavia Sc#728)	SAT, Saturniinae	В
d 100m	Mourning Cloak, Nymphalis antiopa L. (Yugoslavia Sc#725)	NYM, Nymphalinae	В
Margin	UR: Mourning Cloak, <i>N. antiopa</i> L. (Yugoslavia Sc#725)	NYM, Nymphalinae	Z
	UR: Cecropia Moth, <i>Hyalophora cecropia</i> L. (Canada Sc#2238)		$\overline{z}$
	MR: Prosopocera lactator meridionalis Jordan (Mozambique So	*	$\overline{z}$
SS 350m	Stamp collector (no insect)	, , , , , , , , , , , , , , , , , , , ,	
Margin	MR: Dark Palm Forester, B. mardania Fabr. (Burundi Sc#616)	NYM, Limenitidinae	$\mathbf{Z}$
J	LR: Mourning Cloak, N. antiopa L. (Yugoslavia Sc#725)	NYM, Nymphalinae	Z
	LR: P. lactator meridionalis Jordan (Mozambique Sc#582)	CER, Lamiinae	Z
NIGER	<b>2016 December 5</b> (s-o-s) (MS/4) (NIG1650	)2a)	
	Sahel Charaxes, <i>Charaxes jasius epijasius</i> Reiche (Gambia Sc#4		A
	2016 December 5 (Bee-eaters) (MS/4) (NIC	G16518a)	
c 850fr	Bee in bird's beak	API, Apinae	C
	2016 December 5 (Butterflies) (MS/4 & SS	/1) (NIG16521a&b)	
a 850fr	Old World Swallowtail, Papilio machaon L.	PAP, Papilioninae	A
b 850fr	Mustard or Green-Veined White, Pieris napi L.	PIE, Pierinae	A
c 850fr	Orange Tip, Anthocharis cardamines L.	PIE, Pierinae	A
d 850fr	Meadow Brown, Maniola jurtina L.	NYM, Satyrinae	Α
SS 3300fr	Large Blue, Maculinea arion L.	LYC, Polyommatinae	A
Margin	LL & LR: Painted Lady, Vanessa cardui L.	NYM, Nymphalinae	Z

#### PETERSPOST (Russia & Finland)

This is a private post and courier service in Russia delivering cards, letters, and packages to the World. It has post offices in St. Petersburg and Moscow in Russia and in Helsinki, Finland. It began issuing a great variety of "stamps" on 16 September 2015. These "stamps" are produced and sold by Stamperija, Ltd. The unit of value is shown as a P with a line across the stem beneath the loop of the P, or in Euros. The numbers below are assigned by the issuer.

#### 2016 October 21 (PhilaTaipei 2016: Baltic Fauna) (SS/6) (Stamperija)

Note: Each of these shows Latvia Sc#425 s-o-s

PP16/9	50P	Augsburg Tiger moth, Pericallia matronula L. (s-o-s)	ARC, Arctiinae	A
		SS/6 (PP16/7-12)		
PP16/15	100P	Same species (s-o-s)		
		SS/6 (PP16/13-18)		
		SS/6+6 labels (PP16/13-18)		
		MS/7+1 label (PP16/15)		
PP16/21	€1	Same species (s-o-s)		
		SS/6 (PP16/19-24)		
PP16/27	€1.50	Same species (s-o-s)		
		SS/6 (PP16/25-30)		

RUSSIA (Adigey) Produced in strips of	<b>2016</b> (Local Labels) (WWF ovpts on R of five pairs on three different basic stamps	Russian stamps)
b 300r c 300r d 300r	Calopteryx mingrelica Selys Dark Pincertail, Onychogomphus assimilis Schneider Anormogomphus kiritschenkoi Bartenev Haploembia solieri Rambur Embiog Bradyporus multituberculatus Fischer von Waldheim	CAL, Calopteryginae B GOM, Gomphinae B GOM, Gomphinae B otera, Embioidea, Oligotomidae B TET, Bradyporinae B
RUSSIA (Primory Produced in strips of	<b>2016</b> (Local Labels) (WWF ovpts on R of five pairs on three different basic stamps	Russian stamps)
b 200r c 200r d 200r	Anatlanticus uvarovi Miram	Forficulidae, Forficulinae B Grylloblattoidea, Grylloblattidae B TET, Tettigoniinae B hidophoridae, Aemodogryllinae B TET, Tettigoniinae B
ST. THOMAS & 1	PRINCE IS 2016 November 10 (Butterflies) (MS/4	4 & SS1) (ST16508a&b)
a 31000d b 31000d c 31000d	Charaxes thomasius Staudinger African Map, Cyrestis camillus Fabr. Blue Diadem, Hypolimnas salmacis Drury Large Spotted Acraea, Acraea zetes L. Top & UR: Death's Head Moth, Acherontia atropos L. LR: Same species (larva)	NYM, Charaxinae A NYM, Cyrestinae A NYM, Nymphalinae A NYM, Heliconiinae A SPH, Sphinginae Z
SS 120000d Margin	Acraea jodutta Fabr. Top, UR, LR: Death's Head Moth, Acherontia atropos L.	NYM, Heliconiinae A SPH, Sphinginae Z
SIERRA LEONE	<b>2016 August 29</b> (Butterflies) (MS/4 &	
a 6000Le b 6000Le c 6000Le d 6000Le	Red Anartia, Anartia amathea L. Blue or Leopard Lacewing, Cethosia cyane Drury High Brown Fritillary, Fabriciana adippe Schiffermüller Eastern Black Swallowtail, Papilio polyxenes Fabr. Adonis Blue, Polyommatus bellargus Rottemburg UL: Blue or Leopard Lacewing, Cethosia cyane Drury UR: High Brown Fritillary, Fabriciana adippe Schiffermül Bot: Malachite, Siproeta stelenes L.	NYM, Nymphalinae A NYM, Heliconiinae A NYM, Heliconiinae A PAP, Papilioninae A LYC, Polyommatinae A NYM, Heliconiinae Z
	<b>2016 August 29</b> (Bees) (MS/4 & SS/1)	) (SRL16812a&b)
b 6000Le c 6000Le d 6000Le	Anthidium florentinum Fabr.  Western Honeybee, Apis mellifera L. (on flower) Western Honeybee, Apis mellifera L. (on hive comb) Blue-Banded Bee, Amegilla cingulata Fabr. Eastern Carpenter Bee, Xylocopa virginica L. UL: Blue-Banded Bee, Amegilla cingulata Fabr. UR & Bot: Western Honeybee, Apis mellifera L.	MEG, Megachilinae A API, Apinae A API, Apinae A API, Apinae A API, Xylocopinae A API, Apinae Z API, Apinae Z
	2016 October 28 (Butterfly Migration	) (MS/4 & SS/1)(SRL161017a&b)
a 6000Le b 6000Le c 6000Le d 6000Le SS 24000Le Margin	Long-Tailed Skipper, <i>Urbanus proteus</i> L.  Monarch, <i>Danaus plexippus</i> L., $\bigcirc$ Pipevine Swallowtail, <i>Battus philenor</i> L.  Common Buckeye, <i>Junonia coenia</i> Hübner Question Mark, <i>Nymphalis interrogationis</i> Fabr. (Cap: <i>Poly</i> LL: Long-Tailed Skipper, <i>Urbanus proteus</i> L.  Top & LR: <i>Danaus plexippus</i> L (~40–50 in migrating fligh MR: Pipevine Swallowtail, <i>Battus philenor</i> L.	HES, Pyrginae A NYM, Danainae A PAP, Papilioninae A NYM, Nymphalinae A ygonia) NYM, Nymphalinae A HES, Pyrginae Z

SIEI	RRA LEONE	(continued) 2016 November 28 (Darwin) (MS/4) (SRL	.161116a)	
b	6000Le	L: Alfalfa Butterfly, <i>Colias eurytheme</i> Boisduval ♀	PIE, Pierinae	В
		Bot: U/I beetle	Coleoptera	UC
		2016 December 29 (Butterflies) (MS/4 & S	SS/1) (SRL161204a&b)	
a		Brown Argus, Aricia agestis Denis & Schiffermüller	LYC, Polyommatinae	Α
b	6000Le		LYC, Polyommatinae	A
c		Blue Pansy, Junonia orithya L.	NYM, Nymphalinae	A
d		Eurasian Comma, Nymphalis c-album L.	NYM, Nymphalinae	A
	Margin	LL: Mourning Cloak, Nymphalis antiopa L.	NYM, Nymphalinae	Z Z
		UR: Eastern Tailed Blue, Cupido comyntas Godart	LYC, Polyommatinae PAP, Parnassiinae	Z
	SS 24000Le	MR: Regal Apollo, <i>Parnassius charltonius</i> Gray Rosita Patch, <i>Chlosyne rosita</i> Hall	NYM, Nymphalinae	A
	Margin	· · · · · · · · · · · · · · · · · · ·	NYM, Limenitidinae	Z
		<b>2016 December 29</b> (Bee-eaters) (MS/4 & S		
b	6000Le	Bee in bird's beak	Apidae	С
Ü		Bot: Western Honeybee, <i>Apis mellifera</i> L. (in bird's beak)	API, Apinae	Č
TOD			•	
	OMON ISLA			٨
a b	\$12 \$12	Orange Sulfur, Alfalfa Butterfly, <i>Colias eurytheme</i> Boisduval & Pipevine Swallowtail, <i>Battus philenor</i> L.	PAP, Papilioninae	A A
c	\$12	Queen, Tropic Queen, <i>Danaus gilippus</i> Cramer	NYM, Danainae	A
d	\$12 \$12		PAP, Papilioninae	A
u	SS \$40	Olive or Juniper Hairstreak, <i>Callophrys gryneus</i> Hübner	LYC, Theclinae	A
	Margin	UL: Goatweed Leafwing, Anaea troglodyta andria Scudder	NYM, Charaxinae	Z
	Z.	LL: Blue Morpho, Morpho rhetenor Cramer	NYM, Morphinae	Z
		Bot: Gray Hairstreak, Strymon melinus Hübner	LYC, Theclinae	Z
		UR: Pearl Crescent, Phyciodes tharos Drury	NYM, Nymphalinae	Z
		MR: Giant Swallowtail, Papilio cresphontes Cramer	PAP, Papilioninae	Z
TOO	60	<b>2016 November 16</b> (World Fauna) (SS/1)	(TG16407b)	
	SS 3300fr	Small Tortoiseshell, Nymphalis urticae L.	NYM, Nymphalinae	A
	Margin	LL & UR: Same species (National Insect of Denmark)		
		2016 December 15 (Mushrooms) (MS/4 &	SS/1) (TG16502a&b)	
a	900fr	Speckled Wood, Pararge aegeria L.	NYM, Satyrinae	В
		Mushroom (no insect)		
	Margin	UL: Meadow Brown, <i>Maniola jurtina</i> L. ♀	NYM, Satyrinae	Z
		2016 December 15 (Butterflies) (MS/4 & S		
a	900fr		PAP, Papilioninae	A
b	900fr	Smoky Orange Tip, Red Tip, Colotis euippe L.	PIE, Pierinae	A
C	900fr	Giant Blue Swallowtail, <i>Papilio zalmoxis</i> Hewitson	PAP, Papilioninae	A
d	900fr	J · 1	PAP, Papilioninae	A
		Large Striped Swordtail, <i>Graphium antheus</i> Cramer LL: Monarch, <i>Danaus plexippus</i> L. (larva)	PAP, Papilioninae NYM, Danainae	A Z
	Margin	UL & R: African Monarch, <i>Danaus chrysippus</i> L. (4ea)	NYM, Danainae	Z
				L
	0506	2016 December 29 (Bees) (MS/4 & SS/1)		A
a h		Blue Banded Bee, Amegilla cingulata Fabr. Western Honovboo, Anis mallifora I	API, Apinae	A
b C	850fr 850fr	Western Honeybee, <i>Apis mellifera</i> L. Violet Carpenter Bee, <i>Xylocopa violacea</i> L.	API, Apinae API, Xylocopinae	A A
c d	850fr	Eastern Carpenter Bee, <i>Xylocopa violacea</i> L.	API, Xylocopinae API, Xylocopinae	A
u		Anthidium florentinum Fabr.	MEG, Megachilinae	A
		R: Western Honeybee, <i>Apis mellifera</i> L. (2ea)	API, Apinae	Z
		, r (=)	, r	_

<b>TOGO</b> (continued)	<b>2016 December 29</b> (Butterflies) (MS	/4 & SS/1) (TG16604a&b)
a 850fr	Amber Phantom, <i>Haetera piera</i> L.	NYM, Satyrinae
b 850fr	Raja Brooke's Birdwing, Troides brookiana Wallace	PAP, Papilioninae
c 850fr	Clipper, Parthenos sylvia Cramer	NYM, Limenitidinae
d 850fr	Golden Kaiser-i-Hind, Teinopalpus aureus Mell	PAP, Papilioninae
SS 3300fr	Mourning Cloak, Nymphalis antiopa L.	NYM, Nymphalinae
Margin	Top: Swift Peacock, Papilio peranthus Fabr. (2ea)	PAP, Papilioninae
	Bot: Tailed Jay, Graphium agamemnon L.	PAP, Papilioninae
	LR: Blood-Red Cymothoe, Cymothoe sangaris Godart	NYM, Limenitidinae

#### **EXTINCT BUTTERFLY**

The illustrated cover could fit in both our Entomology and our Paleontology sections.

It is a metered philatelic cover advertising the Entomology Committee of the Federation of German Philatelists.

It was sent from Ulm to Böblingen, Germany, and post-marked on 3 November 1992.

The 100pf meter paid the first class letter rate in effect at the time of mailing. The meter style is a Hasler "Mailmaster" type NA17 from 1978.

The illustrated meter shows an image of a unique insect specimen.



†*Prodryas persephone* is an extinct butterfly that is known from a single specimen collected from the shale deposits in the Florissant Fossil Beds in Colorado. It dates from the Late Eocene epoch (38 to 34 million years ago).

The type specimen, now held at the Museum of Comparative Zoology of Harvard University, was the first fossil butterfly to be found in North America, and has been described as "possibly the best fossil butterfly specimen ever found." It is a compression fossil and was d by the naturalist Charlotte Hill (1849-1930) who discovered hundreds of fossil specimens at the fossil beds.

Samuel H. Scudder (1837-1911) described and named the specimen in 1878, placing it in the Nymphalinae subfamily. It is thought to be closely related to the *Hypanartia* and *Antanartia* genera.





## **PALEONTOLOGY**

# Editor Michael Kogan, BU1863 New Listings



Scott#	Denom	Common Name/Scientific Name	Family	Code
BRAZ	IL	2016 November 21 (Geopark Araripe) (Pa	ir)	
a	(1.70r)		Araripegomphidae	A
b	` /	U/I Moth fossil	Eolepidopterigidae	A
CENT	RAL AFRI	CA 2016 December 19 (Dinosaurs) (MS/4 & S	SS/1) <sup>[1]</sup>	
a		Ceratosaurus	†Ceratosauridae	A
b		Dimorphodon	†Dimorphodontidae	A
c		Dakosaurus maximus	†Metriorhynchidae	A
d	900fr	Shonisaurus popularis	†Shastasauridae	A
	SS 3000fr	Mesosaurus	†Mesosauridae	A
	Margin	R: Elasmosaurus	†Elasmosauridae	Z
	_	LL: Trilobite	Class: †Trilobita	Z
DJIBO	UTI	2016 September 26 (Extinct Animals) (M	S/4 & SS/1) <sup>[1]</sup>	
a		Columbian Mammoth, Mammuthus columbi	Elephantidae	A
b		Moropus elatus	†Chalicotheriidae	A
c		Elasmotherium sibiricum	Rhinocerotidae	A
d	260fr	Saber-toothed Cat, Smilodon populator	Felidae	A
	SS 960fr	Glyptodon clavipes	Chlamyphoridae	A
	Margin	UR: Short-faced Bear, Arctodus pristinus	Ursidae	Z
		LR: Palorchestes azael	†Palorchestidae	Z
		2016 September 26 (Prehistoric Aquatic A	Animals) (MS/4 & SS/1) <sup>[</sup>	[1]
a	260fr	Enchodus	†Enchodontidae	A
b	260fr	Mosasaurus hoffmanni	†Mosasauridae	A
c	260fr	Ammonite	Class: Ammonoidea	A
d	260fr	Helicoprion bessonovi	†Helicoprionidae	A
	SS 960fr	Dinichthys terrelli	†Dinichthyidae	A
	Margin	UR; Dearcmhara shawcrossi	Order: †Ichthyosauria	
		MR: Mosasaurus hoffmanni	†Mosasauridae	Z
		LR: Anomalocaridid	†Anomalocarididae	Z
NIGEF	R	2016 October 24 (Prehistoric Marine Crea	tures) (MS/4 & SS/1) <sup>[1]</sup>	
a	750fr	Palau Nautilus, Nautilus belauensis	Nautilidae	A
b	750fr	Dunkleosteus terrelli	†Dunkleosteidae	A
c	750fr	Shonisaurus popularis	†Shastasauridae	A
d	750fr	Top: Prognathodon saturator	†Mosasauridae	A
		Bot: Brachauchenius lucasi	†Pliosauridae	A
	SS 3000fr	Liopleurodon ferox	†Pliosauridae	A
		UR: Brachauchenius lucasi	†Pliosauridae	Z
		LL: Dunkleosteus terrelli	†Dunkleosteidae	Z
		LR: Mosasaurus hoffmanni	†Mosasauridae	Z

NIG	<b>ER</b> (continued	2016 <b>December 5</b> (Dinosaurs) (MS/4 & S	$(SS/1)^{[1]}$	
a	850fr	Udanoceratops tschizhovi	†Leptoceratopsidae	A
b	850fr	Pteranodon longiceps	†Pteranodontidae	A
c	850fr	Edmontonia longiceps	†Nodosauridae	A
d	850fr	Afrovenator abakensis	†Megalosauridae	A
	SS 3300fr	Cap: Loremus ipsumus sitdoloricus (this appears to be a made	-up name)	A
		LR: Same species		Z
		UR: Pterosaur	Order: †Pterosauria	Z
		<b>2016 December 5</b> (s-o-s) (MS/4 & SS/1) <sup>[</sup>		
a		Qantassaurus (Australia Sc#3990)	†Hypsilophodontidae	
	SS 3300fr	Tyrannosaurus rex (Germany Sc#B1007c)	†Tyrannosauridae	
		2016 December 21 (Prehistoric Water Ar		
a		Kronosaurus	†Pliosauridae	A
b	825fr	LR: Deinosuchus	Order: Crocodilia	A
		UL: Albertosaurus	†Tyrannosauridae	A
c		Dunkleosteus terrelli	†Dunkleosteidae	A
d		Leedsichthys	†Pachycormidae	A
	SS 3300fr	L: Mosasaurus	†Mosasauridae	A
	3.6	R: Cretoxyrhina mantelli	†Cretoxyrhinidae	A
	Margin	UR: Elasmosaurus	†Elasmosauridae	Z
		MR: Tylosaurus	†Mosasauridae	Z
		LR: Prognathodon	†Mosasauridae	Z Z
		Bot: Mosasaurus	†Mosasauridae	Z
MA.	LDIVE ISLAN	1 \		
a		Diplodocus (with Charles Darwin)	†Diplodocidae	В
b		Aquilops (with Charles Darwin)	Order: †Ornithischia	В
c		Diceratops (with Charles Darwin)	†Ceratopsidae	В
d		Microraptor (with Charles Darwin)	†Dromaeosauridae	В
	SS 70r	Tyrannosaurus rex (with Charles Darwin)	†Tyrannosauridae	В
	Margin	R: Diplodocus	†Diplodocidae	Z
		LL: Diceratops	†Ceratopsidae	Z
		UR: Microraptor	†Dromaeosauridae	Z
MO	ZAMBIQUE	2016 August 10 (Prehistoric Humans) (M		
a		Homo erectus (with skull)	Hominidae	В
b		Homo neanderthalensis (with bear)	Hominidae	В
c		Australopithecus africanus	Hominidae	В
d		Homo neanderthalensis (with skull)	Hominidae	В
	SS 350m	L: Homo neanderthalensis	Hominidae	В
		R: Cave Bear, Ursus spelaeus	Ursidae	В
	Margin	Ctr & MR: Homo erectus	Hominidae	Z Z
		LL: Woolly Rhinoceros, Coelodonta antiquitatis	Rhinocerotidae	Z
PER		<b>2016?</b> (Prehistoric Animals)		
		, Serpost presented several new stamps on their Internet site, u		
		pe/SellosPostales2016.html). As far I know most of them are st	_	ks in
Peru	. One of these	stamps shows a fossil and reconstruction of the largest prehistor	ne bird.	
	\$10	Pelagornis (with fossil)	†Pelagornithidae	A
SIE	RRA LEONE	2016 August 29 (Extinct Animals) (MS/4	· & SS/1) <sup>[1]</sup>	
a	6000Le	Thylacine, Thylacinus cynocephalus	†Thylacinidae	A
b	6000Le	Saber-toothed Cat, Smilodon fatalis	Felidae	A

SIE	RRA LEONE	(continued)	
c		Giant Rhinoceros, <i>Elasmotherium</i> Rhinocerotidae	A
d		Dodo, <i>Raphus cucullatus</i> Columbidae	A
u		Woolly Mammoth, <i>Mammuthus primigenius</i> Elephantidae	A
		•	Z
	Margin	UL: Thylacine, Thylacinus cynocephalus †Thylacinidae	Z
		UR: Dodo, <i>Raphus cucullatus</i> Columbidae	L
		<b>2016 August 29</b> (Dinosaurs & Minerals) (MS/4 & SS/1) <sup>[1]</sup>	
a	6000Le	Prenocephale †Pachycephalosauridae	A
d	6000Le	Gasosaurus Order: Saurischia	Α
	SS 24000Le	Mandschurosaurus †Hadrosauridae	Α
	Margin	Einiosaurus (adult & young) †Ceratopsidae	Z
	-	<b>2016 November 28</b> (Charles Darwin) (MS/4 & SS/1) <sup>[1]</sup>	
a	6000Le	Dinosaur skeleton (with Charles Darwin)	В
b		Dodo, Raphus cucullatus (with HMS Beagle) Columbidae	В
c		Prehistoric humans Hominidae	В
d	6000Le		В
u		Charles Darwin	A
		Prehistoric animals & humans	Z
	17141.5111		_
	C000I -	2016 December 29 (Flying Dinosaurs) (MS/4 & SS/1) <sup>[1]</sup>	
a 1.		Peteinosaurus zambellii Order: †Pterosauria	A
b		Pterodactylus antiquus †Pterodactylidae	A
C		Pterodactylus sp. †Pterodactylidae	A
d		Zhenyuanopterus longirostris †Boreopteridae	A
		Dimorphodon macronyx †Dimorphodontidae	A
	_	L: Quetzalcoatlus northropi †Azhdarchidae	Z
	LOMON ISLA		
a	\$7		A
b	\$7	Alamosaurus sanjuanensis †Saltasauridae	A
c	\$7	Apatosaurus ajax †Diplodocidae	A
d	\$7	Baryonyx walkeri †Spinosauridae	A
e	\$7	Chasmosaurus †Ceratopsidae	A
f	\$7	Cryolophosaurus ellioti Order: Saurischia	A
g	\$7	Deinonychus antirrhopus †Dromaeosauridae	A
h	\$7	Edmontosaurus regalis †Hadrosauridae	A
i	\$7	Euoplocephalus tutus †Ankylosauridae	Α
j	\$7	Gastonia burgei †Nodosauridae	A
k	\$7	Hadrosaurus foulkii †Hadrosauridae	Α
l	<b>C</b> 7	Herrerasaurus ischigualastensis †Herrerasauridae	
	\$7		Α
m	\$7	<i>Irritator</i> †Spinosauridae	A
m n	\$7 \$7	Irritator†SpinosauridaeKentrosaurus aethiopicus†Stegosauridae	
	\$7 \$7 \$7	Irritator† SpinosauridaeKentrosaurus aethiopicus† StegosauridaeMajungasaurus crenatissimus† Abelisauridae	A
n	\$7 \$7 \$7 \$7	Irritator† SpinosauridaeKentrosaurus aethiopicus† StegosauridaeMajungasaurus crenatissimus† AbelisauridaeMegaraptor namunhuaiquiiOrder: Saurischia	A A
n o	\$7 \$7 \$7 \$7 \$7	Irritator† SpinosauridaeKentrosaurus aethiopicus† StegosauridaeMajungasaurus crenatissimus† AbelisauridaeMegaraptor namunhuaiquiiOrder: SaurischiaMuttaburrasaurus langdoni (blue)† Rhabdodontidae	A A A A
n o p	\$7 \$7 \$7 \$7 \$7 \$7	Irritator† SpinosauridaeKentrosaurus aethiopicus† StegosauridaeMajungasaurus crenatissimus† AbelisauridaeMegaraptor namunhuaiquiiOrder: SaurischiaMuttaburrasaurus langdoni (blue)† RhabdodontidaeMuttaburrasaurus langdoni (red & green)† Rhabdodontidae	A A A
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n o p q r	\$7 \$7 \$7 \$7 \$7 \$7 \$7 \$7	Irritator† SpinosauridaeKentrosaurus aethiopicus† StegosauridaeMajungasaurus crenatissimus† AbelisauridaeMegaraptor namunhuaiquiiOrder: SaurischiaMuttaburrasaurus langdoni (blue)† RhabdodontidaeMuttaburrasaurus langdoni (red & green)† RhabdodontidaeOrnithomimus velox† OrnithomimidaePachycephalosaurus wyomingensis† Pachycephalosauridae	A A A A A
n o p q r	\$7 \$7 \$7 \$7 \$7 \$7 \$7 \$7	Irritator† SpinosauridaeKentrosaurus aethiopicus† StegosauridaeMajungasaurus crenatissimus† AbelisauridaeMegaraptor namunhuaiquiiOrder: SaurischiaMuttaburrasaurus langdoni (blue)† RhabdodontidaeMuttaburrasaurus langdoni (red & green)† RhabdodontidaeOrnithomimus velox† OrnithomimidaePachycephalosaurus wyomingensis† PachycephalosauridaePlateosaurus engelhardti† Plateosauridae	A A A A A A A
n o p q r s t	\$7 \$7 \$7 \$7 \$7 \$7 \$7 \$7 \$7	Irritator† SpinosauridaeKentrosaurus aethiopicus† StegosauridaeMajungasaurus crenatissimus† AbelisauridaeMegaraptor namunhuaiquiiOrder: SaurischiaMuttaburrasaurus langdoni (blue)† RhabdodontidaeMuttaburrasaurus langdoni (red & green)† RhabdodontidaeOrnithomimus velox† OrnithomimidaePachycephalosaurus wyomingensis† PachycephalosauridaePlateosaurus engelhardti† PlateosauridaePsittacosaurus mongoliensis† Psittacosauridae	A A A A A A A A
n o p q r s t u	\$7 \$7 \$7 \$7 \$7 \$7 \$7 \$7	Irritator† SpinosauridaeKentrosaurus aethiopicus† StegosauridaeMajungasaurus crenatissimus† AbelisauridaeMegaraptor namunhuaiquiiOrder: SaurischiaMuttaburrasaurus langdoni (blue)† RhabdodontidaeMuttaburrasaurus langdoni (red & green)† RhabdodontidaeOrnithomimus velox† OrnithomimidaePachycephalosaurus wyomingensis† PachycephalosauridaePlateosaurus engelhardti† Plateosauridae	A A A A A A A

SOLOMON ISLANDS (continued)

	SULUMUN ISLA	NDS (continued)				
	y \$7	Saurolophus osborni	†Hadrosauridae	A		
	z \$7	\$7 Sauroposeidon proteles Order: Saurischia				
	aa \$7	Spinosaurus aegyptiacus	†Spinosauridae	A		
	ab \$7	Stegosaurus stenops	†Stegosauridae	A		
	ac \$7	Struthiomimus altus	†Ornithomimidae	A		
	ad \$7	Suchomimus tenerensis	†Spinosauridae	A		
	ae \$7	Tenontosaurus	Order: †Ornithischia			
	af \$7	Triceratops horridus	†Ceratopsidae	A		
	ag \$7	Tropeognathus mesembrinus	†Ornithocheiridae			
	ah \$7	Tsintaosaurus spinorhinus	†Hadrosauridae	A		
	ai \$7	Tyrannosaurus rex	†Tyrannosauridae	A		
	aj \$7	Velociraptor mongoliensis	†Dromaeosauridae	A		
	TOGO	<b>2016 December 15</b> (Dinosaurs) (MS/4 & SS/1) <sup>[1]</sup>				
	a 900fr	Dimorphodon	†Dimorphodontidae	A		
	b 900fr	Dimetrodon	†Sphenacodontidae	A		
	c 900fr	Carnotaurus	†Abelisauridae	A		
	d 900fr	Alioramus remotus	†Tyrannosauridae	A		
	SS 3500fr	Baryonyx	†Spinosauridae	A		
	Margin	Quetzalcoatlus	†Azhdarchidae	Z		
		Baryonyx	†Spinosauridae	Z		
UKRAINE 2017 January 20 (Paleolithic Age) (SS/2)						
	a 7.50g	Mammoth, Mammuthus	Elephantidae	В		
		Prehistoric humans	Hominidae	В		
	b 7.50g	Prehistoric humans	Hominidae	A		
	Margin	L & R: Prehistoric humans	Hominidae	Z		

#### Other Stamps to Consider

#### **CANADA**

#### 2017 January 16 (UNESCO Heritage Sites)

Five stamps issued as MS and self-adhesive booklet of 10 and 30 stamps. The first stamp on the MS shows Dinosaur Provincial Park in Alberta (the same design as in 2015). Dinosaur Provincial Park is known for its remarkable fossil specimens that represent every known group of Cretaceous dinosaurs, as well as its impressive area of virtually undisturbed badlands and riparian (riverside) habitat. At Mistaken Point (the second stamp on the MS), the rugged coastal cliffs host the oldest known collection of large fossils in the world, marking the world's first appearance of large, biologically complex organisms.

#### **GREAT BRITAIN** 2017 January 17 (Ancient Britain)

The subject of these eight stamps is how people lived in prehistoric times in Ancient Britain. The stamps show famous iconic sites and some of the most exceptional artifacts found across the UK, and overlays illustrations to show how people lived, worked, and used the objects. Overall, the stamps give a timeline across thousands of years of history, from a glimpse of Stone Age ritual of 11,000 years ago, through the Bronze Age and into the Iron Age around 300 BC.

#### **ISRAEL** 2017 February 7 (UNESCO World Heritage)

Three stamps showing UNESCO world heritage sites of Israel to be issued on 7 February 2017. One of them depicts a beautiful prehistoric stone tool from Nahal Me'arot Caves in Israel. The caves were used for habitation by hominins and prehistoric humans and contain unique evidence of very early burials.

2.40s Nahal Me'arot Caves and a flint tool found there

#### **Commemorative Postmarks**

#### **CROATIA**

#### **2016 December 22** (Dragutin Gorjanovic Kramberger)

Dragutin Gorjanovic Kramberger was Croatian geologist, archeologist, and paleontologist who discovered a very rich Neanderthal site of an early man today known as Krapina Man in 1899. A skull of Neanderthal is also shown on the postmark.

**ITALY** 

**2016 December 10** (30th anniv. Archaeological Museum of Toleriense)

Prehistoric elephant shown in the middle of the postmark

#### **Future Issues**

2017.03.24: Slovenia: "Mammal Fossils in Slovenia: Cave Lion"

2017.05.19: China P.R.: "Dinosaurs," five stamps and a booklet

2017.??.??: South Africa: "Homo Naledi" (extinct species of hominin that anthropologists first described in 2015)

Tentative: Some stamps that might be related to Paleontology or Paleoanthropology (clarification needed)

2017.04.11: Great Britain (Jersey): SEPAC-Ancient Artifacts

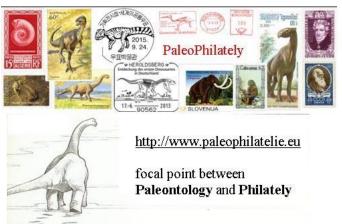
2017.06.14: Great Britain (Jersey): Durrell and the Darwin Initiative

#### **Notes:**

[1] Commercial issue: Stamps issued only for sale to collectors, not used for postal purpose. Stamps of countries that issued excessive or too expensive stamps. Not recommended for serious collectors.

If you know about any recent or future Paleontology-related stamps not listed above, please send a short message to Associate Editor Mr. Michael Kogan (*admin@paleophilatelie.eu*), or by post to the Editor, Jack R. Congrove (address on inside cover).

Images and detailed descriptions of all stamps mentioned above can be viewed on the following website: http://www.paleophilatelie.eu/year/current.html and http://www.paleophilatelie.eu/year/2016.html.



http://www.paleophilatelie.eu/year/current.html list of all new issues

http://www.paleophilatelie.eu/phil\_catalogue.html chronology and country based catalog

http://www.paleophilatelie.eu/stamps\_overview.html gallery of stamps, FDC, circulated covers

Contact: admin@paleophilatelie.eu

Join us on Facebook: PaleoPhilately group



#### **BIOLOGY REFERENCE WEBSITES**

This section contains a listing of web links to on-line references relating to biology topics on stamps and general philatelic information. We are providing this information to assist members in research and not to endorse the sites listed in any way. If readers know of, or use other useful sites, please send the links to your editor and we will include them in future editions. New or changed entries since the last publication are indicated with an asterisk (\*).

#### STAMP ISSUES

**ATA TopicalsOnLine**. On-line stamp sales by topic and country. Anyone can be a buyer, but you must be an ATA member in good standing to be a seller. Robust search capability and reasonable prices.

https://www.topicalsonline.com/

**Catawiki**. Listings and illustrations of stamps for sale by topic for every theme from A to Z. http://www.catawiki.com/catalog/stamps/100283-themes-topics

**Collectors Club of Chicago: Philatelic Encyclopedia**. A comprehensive compendium of definitions for philatelic terms and topics including those in more than 40 foreign languages. The parent site has many additional reports and references. Portions are still under construction.

http://www.collectorsclubchicago.org/philatelic-encyclopedia.php

**Delcampe**. Worldwide listings and illustrations of stamps for sale. They have revised their website to make it more user-friendly.

http://www.delcampe.net/en GB/marketplace/stamps/

**eBay**. Worldwide listings and illustrations of stamps, covers, postcards, and other collectibles for sale. http://www.ebay.com/

**IGPC**. Formerly Cyber Stamps. On-line postage stamp catalogue of worldwide topical issues. https://www.igpc.com/

**Neofila**. Modern issues from Russia, Eastern Europe, and Baltic States. Also includes some African countries. http://www.neofila.com/

**Stamp Collection**. On-line postage stamp catalogue of worldwide issues. Includes production information. http://colnect.com/en/stamps/countries

**Stamperija**. Listings and illustrations of thematic issues from countries located in Africa, Asia, and Oceania produced by Stamperija, Ltd., under contract to several postal administrations. Requires registration, login. http://www.stamperija.eu/

**Stamp World**. Listings and illustrations of issues from all countries by year. Includes production information. Requires free registration and login.

http://www.stampworld.com/en/maps/Europe/

**Virtual Stamp Club**. Latest news from the world of stamp collecting. Links to other stamp collecting sites and the websites of almost every other collector society or major club.

http://www.virtualstampclub.com/

**Zillions of Stamps**. Worldwide listings and illustrations of stamps for sale.

http://www.zillionsofstamps.com/

#### **GENERAL**

**American Philatelic Society**. Listings of dealers, local clubs, stamp shows, and other philatelic events. http://stamps.org/

**Collect 4 All.** Listings of stamps for sale by country and theme. Includes spectrum of animal stamps. http://www.collect4all.com/

**Fauna-Stamps**. Listings of stamps for sale (mainly new issues) on all sorts of biological themes including Cats, Dogs, Horses, Birds, Butterflies, Paleontology, Flora, and WWF animal stamps.

http://www.fauna-stamps.com/

**The Philatelist**. A blog by a philatelic journalist in Portugal. Displayed in several selectable languages. Contains current philatelic news stories and links to archives with past stories. Also includes links to dozens of other world-wide philatelic websites. Philatelic publication reviews.

http://o-filatelista.blogspot.com/

**Tree of Life Web Project**. Worldwide collaborative effort to map the genome of every organism on earth and to establish their relationships to one another.

http://www.tolweb.org/tree

**Zip Code Zoo**. Links to taxonomic identification for all areas of biology including both zoology and botany. They claim to have a page for every living species with photos for many.

http://zipcodezoo.com/

#### **BOTANY**

**Fungal Biodiversity Center**. Dutch site under the Royal Netherlands Academy of Science and Arts dealing with the taxonomy and evolution of fungi. Includes searchable taxonomic databases.

http://www.cbs.knaw.nl/

**Garden Guides**. Replacement site for *www.botany.com*. All kinds of information about plants including cultivation. Listings by common name or scientific name. Grouped by plant types.

http://www.gardenguides.com/

**International Association for Plant Taxonomy**. Links for the standard international codes on taxonomy and nomenclature for algae, fungi, and plants.

http://www.iapt-taxon.org/nomen/main.php

Lichens of North America. Many photos and descriptions of lichens and links to related sites.

http://www.lichen.com/

#### **ENTOMOLOGY:**

**Antbase**. On-line databases maintained by the American Museum of Natural History and Ohio State University listing all the ant species of the world.

http://www.antbase.org/index.htm

**Australian National Insect Collection**. Listings of Common and Scientific Names, systematic listing, and author abbreviations.

http://www.ces.csiro.au/aicn/intro.htm

**Cerambycidae**. Species listing and illustrations of Cerambycidae of the West Palearctic Region organized by subfamily and tribe.

http://www.cerambyx.uochb.cz/

**Cercopoidea Organised On Line**. Taxonomic database operated under the auspices of *Université Pierre-et-Marie-Curie* in Paris and dedicated to the insects Cercopoidea, which belong to the Hemiptera order.

http://rameau.snv.jussieu.fr/cool/index.php

**Entomological Data Information System**. Internet links to many worldwide websites dealing with biology and ecology, especially Lepidoptera.

http://www.insects-online.de/linkfram.htm

**FUNET**. Finnish university share network site containing updated taxonomic listings for insects, especially Lepidoptera. It also has limited listings for mammals, birds, and plants.

http://www.nic.funet.fi/pub/sci/bio/life/intro.html

**International Odonata Research Institute**. Information about dragonflies and damselflies, including listings by geographical area, taxonomy, and links to related sites.

http://www.iodonata.net/

**Natural History Museum**. British site containing Lepidoptera generic names and type species listings. http://www.nhm.ac.uk/our-science/data/butmoth/

**Odonata Society**. German site containing listings of Odonata species found in Europe (in German). http://www.libellula.org/

**World Bee Genera**. UC Riverside site containing listing of all bee generic names and synonyms by family and subfamily current as of September 2007.

http://cache.ucr.edu/~heraty/beepage.html

#### **HERPETOLOGY:**

**AmphibiaWeb**. Provides access to information on amphibian declines, conservation, natural history, and taxonomy. Includes an on-line database of species and links to many related sites.

http://amphibiaweb.org/index.html

**The Reptile Database**. Uetz, P. (Ed.). Taxonomic database that provides basic information about all living reptile species, such as turtles, snakes, lizards, and crocodiles, as well as tuataras and amphisbaenians. It does not include dinosaurs.

http://reptile-database.reptarium.cz/

**Turtle Meter Stamps**. Updated website containing a worldwide catalog of meter stamps and meter marks the depict turtles and tortoises based on the owners collection of more than 220 items. There is an image of each meter with some short comments on its use and scarcity in English, Italian, and French.

http://turtlemeterstamp.altervista.org/

World-Wide List of Turtles and Tortoises on Stamps. This on-line listing was produced by Donald N. Riemer, a former member of the Biology Unit and contributor to this journal, who passed away in June 2012. The site contains a checklist of stamps by country along with appendixes listing labels, cinderellas, turtle look-alike stamps, and post offices with "turtle" or "tortoise" in their name.

http://www.personal.psu.edu/crr2/turtstmp/

#### **ICHTHYOLOGY**

**All Tropical Fish**. Provides information on marine fishkeeping, corals, invertebrates and freshwater fish. Offers fish forums, community and article and photo upload.

http://www.alltropicalfish.com/

**FishBase**. A searchable database developed at the WorldFish Center in Taiwan in collaboration with the Food and Agriculture Organization of the United Nations. Contains all you ever wanted to know about fishes. http://fishbase.sinica.edu.tw/home\_tw.htm

#### **MAMMALS**

Feline Philately Homepage. All sorts of cat stamps, postmarks, and related articles.

http://www.catstamps.org/

**Mammal Species of the World**. On-line database of worldwide mammal species hosted by the Smithsonian National Museum of Natural History.

http://www.vertebrates.si.edu/msw/mswcfapp/msw/index.cfm

#### **ORNITHOLOGY**

Birds of the World. All sorts of bird stamps by country and species, including new issues.

http://www.bird-stamps.org/

**Bird Stamp Society**. Website of an organization catering to collectors of bird stamps. They publish a quarterly journal that lists new birds on stamps.

http://www.birdstampsociety.org/index.html

**Theme Birds on Stamps**. All sorts of bird stamps by country and species, including new issues.

http://www.birdtheme.org/

#### **PALEONTOLOGY:**

**Dinosaur Illustrations**. Galleries of dinosaur illustrations by species. Includes links to paleontology stamp sites and other related sites.

http://www.search4dinosaurs.com/

**Paleophilatelie**. Edited by our Paleontology Editor, Michael Kogan. Catalogue of Paleontology related philatelic items, such as paleontologists, fossils, prehistoric animals, dinosaurs, early man, and museums on official post stamps, envelopes, and post cards. Contains links to related news items and sites.

http://www.paleophilatelie.eu/index.html

#### **GLOSSARY OF TERMS**

This section lists the definitions of acronyms, abbreviations, and code letters used throughout this journal. This listing does not include abbreviations used for the name of a taxonomic author, or commonly used symbols.

#### **Checklist Codes:**

E	3r	Branch	Α	Subject is the primary design element
F	=	Flowers (with or without other plant parts)	В	Subject is only part of the main design
F	-r	Fruit (including seeds, nuts, grains, etc.)	С	Subject is a minor representation
F	−rV	Grain head with sheaf or stalk	G	Subject is a generalized depiction
L	_	Lichen	R	Related subject (e.g., scientist, equipment)
N	M	Mushroom or fungus	S	Subject is a stylized or symbolic depiction
٦	Γ	Trees (without flowers or fruit)	U	Subject is unidentified or unidentifiable
١	/	Various (vines, vegetables, roots, leaves, etc.)	Χ	Subject is a lookalike (e.g., mushroom cloud)
١	٧r	Wreath	Z	Subject is in the Margin or selvage
١	∕Vr*	Head wreath (or chaplet)		

#### **Acronyms and Abbreviations:**

Actority	ilis alia Appicviations.		
AAPE	American Association of Philatelic Exhibitors	ovpt	overprinted
anniv	anniversary	perf	perforated
APC	American Philatelic Center (Bellefonte, PA)	photo	photogravure
APS	American Philatelic Society	ptg	painting or artwork
ATA	American Topical Association	R	right position indicator
bklt	booklet	s/a	self-adhesive
Cap	captioned	Sc#	Scott Catalogue number
CTO	canceled to order	s-o-s	stamp on stamp
CTR	center position indicator	sp.	species
DS	deluxe sheet	SS	souvenir sheet
Ed.	Editor	ssp.	sub-species
Expo	Exposition	s/t	se-tenant
horiz	horizontal orientation	surch	surcharged
imperf	imperforate	UL	upper left position indicator
Intl.	International	unwmk	un-watermarked
L	left position indicator	UPU	Universal Postal Union
litho	lithography	UR	upper right position indicator
LL	lower left position indicator	US	United States
LR	lower right position indicator	USPOD	United States Post Office Department
mm	millimeter	USPS	United States Postal Service
MS	miniature sheet	var.	variety
ML	middle left position indicator	vert	vertical orientation
MR	middle right position indicator	Vol	Volume
N/A	not applicable (or not available)	wmk	watermarked
nd	non-denominated	WWF	World Wildlife Federation
NTSS	National Topical Stamp Show	Yv#	Yvert & Tellier Catalog number
NWF	National Wildlife Federation		

Entomology Family Abbreviations:								
ACR	Acrididae	AES	Aeshnidae	AND	Andrenidae			
ANO	Anobiidae	ANT	Anthicidae	API	Apinae			
ARC	Arctiidae	BEL	Belostomatidae	BLA	Blattidae			
BRA	Brahmaeidae	BRAC	Braconidae	BUP	Buprestidae			
CAL	Calopterygidae	CAN	Cantharidae	CAR	Carabidae			
CAS	Castniidae	CER	Cerambycidae	CHR	Chrysomelidae			
CHRY	Chrysopidae	CIC	Cicadellidae	CICA	Cicadidae			
COC	Coccinellidae	COE	Coenagrionidae	COR	Corydalidae			
CORD	Cordulegastridae	CORE	Coreidae	cos	Cosmopterygidae			
CRA	Crabronidae	CRAM	Crambidae	CUL	Culicidae			
CUR	Curculionidae	DER	Dermestidae	DRO	Drosophilidae			
DYT	Dytiscidae	ELA	Elateridae	FOR	Formicidae			
FUL	Fulgoridae	GEO	Geometridae	GEOT	Geotrupidae			
GOM	Gomphidae	GRA	Gracillariidae	GRY	Gryllidae			
GRYA	Gryllacrididae	HAL	Halictidae	HES	Hesperiidae			
HYM	Hymenopodidae	ICH	Ichneumonidae	LAM	Lampyridae			
LAS	Lasiocampidae	LIB	Libellulidae	LIM	Limacodidae			
LUC	Lucanidae	LYC	Lycaenidae	LYG	Lygaeidae			
LYM	Lymantriidae	MAN	Mantidae	MEG	Megachilidae			
MEL	Meloidae	MEM	Membracidae	MIR	Miridae			
MUS	Muscidae	MYR	Myrmeleontidae	NOC	Noctuidae			
NOL	Nolidae	NOT	Notodontidae	NYM	Nymphalidae			
OEC	Oecophoridae	PAP	Papilionidae	PAS	Passalidae			
PEN	Pentatomidae	PHA	Phasmatidae	PHY	Phylliidae			
PIE	Pieridae	PLU	Plutellidae	POM	Pompilidae			
PSY	Psychodidae	PTE	Pterophoridae	PYR	Pyralidae			
PYRG	Pyrgomorphidae	RAP	Rhaphidophoridae	RED	Reduviidae			
RIO	Riodinidae	ROM	Romaleidae	SAR	Sarcophagidae			
SAT	Saturniidae	SCA	Scarabaeidae	SCO	Scoliidae			
SCU	Scutelleridae	SES	Sesiidae	SIL	Silphidae			
SIM	Simuliidae	SIR	Siricidae	SPH	Sphingidae			
SPHE	Sphecidae	STA	Staphylinidae	SYR	Syrphidae			
TAB	Tabanidae	TEN	Tenebrionidae	TEP	Tephritidae			
TET	Tettigoniidae	TIP	Tipulidae	TOR	Tortricidae			
TRI	Trichogrammatidae	URA	Uraniidae	VES	Vespidae			
YPO	Yponomeutidae	ZYG	Zygaenidae					