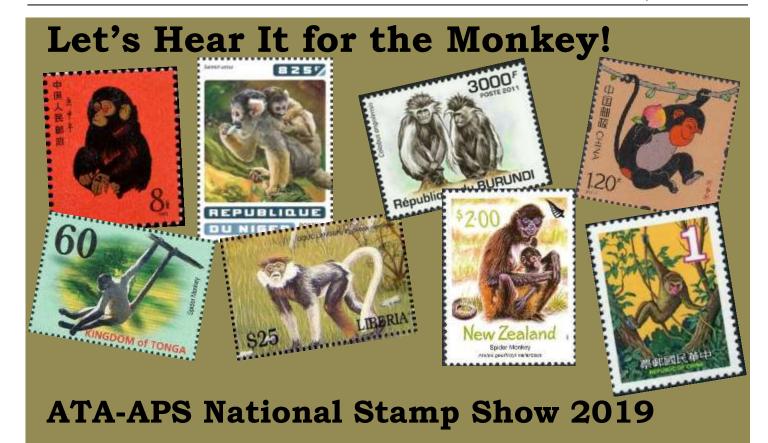
BIOPHILATELY

OFFICIAL JOURNAL OF THE BIOLOGY UNIT OF ATA

SEPTEMBER 2019

VOLUME 68, NUMBER 3















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BIOPHILATELY

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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.

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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 November 2019.

FROM THE EDITOR'S DESK

The summer is full of great stamp events including shows at all levels from local to international, symposiums and seminars, auctions, and club meetings. Hopefully each of you is able to take advantage of the opportunity to attend these events. If you are a lonely collector out there, check out a stamp club close to you. They are always looking for new members and offer assistance and lots of interesting activities.

This edition contians reports on two significant activities that happen each summer: The American Philatelic Society (APS) Summer Seminar and the APS-ATA stamp show. These were both stellar events and I highly recommend you consider attending them next summer.

In addition to many terrific doings at the summer show, our President, Laurie Ryan, received her 25-year membership pin from the APS at its town hall meeting.



Additionally, there is much news coming out of the ATA Board meeting and annual general meeting that were held at the joint APS-ATA show. See the articles starting on page 169 and the show report on page 172.

All of these actions are important for our study unit as well as the ATA, but we should look at one in particular. As part of October Stamp Collecting month, the ATA is implementing its *Everyone Recruit One* program. They want each member to recruit at least one other person to join the organization. The Biology Unit should try to do the same thing. When you combine them, our topics are probably the most widely collected in the entire hobby. Check with your club members and people attending your local shows and sign someone up.

While I am on the subject, I happen to know that many of our Unit members are **not** also members of the ATA. I think this is a shame. Perhaps those who are not members may feel that the ATA is too general for their interests and are satisfied with focusing on their own field of study. But I would like to point out that this Unit would not exist if it were not for our parent, the ATA. Not only do they deserve our loyalty and support, but they offer many exceptional services to their members including an award-winning magazine, *Topical Time*, and extensive checklist services. Please go to the ATA website (*www.americantopicalassn.org*) and fill out a membership application.

It is again time for out Unit elections. You will find a ballot included with this edition. **Please make your choices** and return it to the Secretary by 30 September 2019. We will announce the results in the next issue.

This issue has no Fungi or Herpetology listings. We expect to have full listings in the next edition.

There are entirely too many articles in this issue written by me. The rest of you out there get off your duffs and send me an article about something in your collection, or some other thing about collecting that interests you. I assure you others will be interested as well.

Jack R. Congrove

DUES RATES (US\$)		ADVERTISING RATES	
US membership	\$25	Full page insertion	\$20
Canada membership	\$30	Half page insertion	\$10
Worldwide membership	\$45	Quarter page insertion	\$5
On-line membership	\$15		

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

I just returned from the StampShow/NTSS in Omaha, Nebraska. I arrived early so I could visit the Henry Doorly Zoo. Tuesday morning I drove down to the zoo, which is in the top tier of the United States. With more than 160 acres, the exhibits are fantastic.

Each exhibit is laid out as a region or environment. These include the Himalayans, Jungles of Africa and Asia, African Veldt, Deserts of the World, The Nocturnal World, and a large Aquarium.

Each exhibit depicts the scenery of the region, both natural and manmade. I love how each is set up to show how scientists study the environment, both flora and fauna, with research stations, data postings, etc. This certainly is an innovative approach. One highlight for me was to see Muki the gorilla again. I watched her grow up at the Cincinnati Zoo.



Our Biology Study Unit met Saturday morning, an hour later than usual. We had 12 people in attendance. As usual, we opened with introductions from the attendees. We discussed the journal and membership numbers. Please consider writing an article for Biophilately. We are, thankfully, in quite good shape.

This year marks the 70th anniversary of the American Topical Association. We had a delicious cake at the President's Reception, an historical retrospective, and beautifle commemorative pins, all to honor Jeryy Husak's great vision in the creation of this organization. Oh, and I also found two more Hedgehogs on stamps!

Laurie Ryan

NEW TOPICS FROM ATA

The hardworking checklist coordinators continue to add all new issues, as well as new topics to the dATAbase. Fall is a perfect time to update your checklist, or add a new one. Perhaps one of these new lists appeals to you: **Game of Thrones**, **Duchess Meghan**, **scented stamps**, **the Beatles**, **US National Parks**, **Charles Schultz-Peanuts**, **French horns**, **propaganda**, **all-terrain vehicles**, and **jet skis**. ATA now has more than 1300 checklists by topic, and can also custom search for any topic you dream up. Contact the ATA office to order your next topic! 618-985-5100, or *americantopical@msn.com*.

ANIMALS, DOGS & CATS, HORSES, INSECTS, BUGS, BUTTERFLIES, MALARIA, FLOWERS & PLANTS, ORCHIDS, MUSHROOMS, MARINE LIFE, FISH, TURTLES, REPTILES, SHELLS, WHALES & SEALS, BIRDS, MINERALS, MIXED BIOLOGY TOPICS

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SECRETARY-TREASURER'S CORNER

MEMBERSHIP

These members who were two years in arrears in their dues have been dropped from the membership roll: **Bogart**, **Collins**, **Foster**, **Hamilton**, **Hodge**, **Radnell**, **Russ**, **Stansfield**, and **Uicker**. The current membership of the Biology Unit stands at 122, but this will fall to 113 if all the listed members below are dropped. In 2000, there were 249 members.

The following members are only paid through 2018, and thus are one year behind in their dues. They will be dropped from the roll if the Treasurer does not receive payment in a timely manner: Cohen, Drago, Law, Lloyd, Moynihan, Palazzo, Rosche, Vaughn, Wasilov, White, and Zimmerman.



NEW MEMBERS

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. The Biology Unit welcomes the following new members:

1893	Robert Cagna,	4405	Chandler Dr.	N.	Wilson.	NC 27896	animal rights.	welfare.	conservation.	sanctuaries
10)5	rtocort Cagna,		Change Di.	- 19	* * * * * * * * * * * * * * * * * * * *	110 = 1000	difficult inglites,	" CITAL C	, comper vacion,	building

1894 Van Wallach, 4 Porter Park, Cambridge, MA 02138

snakes (4)

1895 Koenraad Bracke, Baerdonckstraat 83, BE-9230 Wetteren, Belgium

owls, bird song, woodpeckers, godwits (5), spiders, insects (7)

1896 Robert Brew, Acton, MA

trees (2)

UNIT ELECTIONS

The Biology Unit will hold its election of officers in September. The deadline for voting is 30 September 2019. A ballot is enclosed with this edition of the journal. Please complete the ballot and send it to the Secretary, Chris Dahle. You can send it either by regular post, or by email. Here are the addresses:

Chris Dahle email: chris-dahle@biophilately.org

Biology Unit Election 1401 Linmar Dr. NE Cedar Rapids, IA 52402

The following are candidates for re-election:

President: Laurie Ryan (Ohio)

Vice President: Glenn Mertz (Pennsylvania)

Secretary/Treasurer: Chris Dahle (Iowa)

Director: Jack Congrove (Washington)
Director: John Pereira (Massachusetts)
Director: Fred Skvara (New Jersey)
Director: Don Wright (Wisconsin)

TREASURER'S REPORT

We are still running a deficit, although the past year we have reduced it by \$390.81, from \$1,702.54 to \$1,311.73. Publishing the journal is still our biggest expense. Printing costs have risen from \$1,506.11 to \$2,008.42. Total postage costs have dropped from \$1,309.27 to \$1,035.97. We did not subsidize the publishing of an ATA handbook this year. Income increased by \$340.56, while donations dropped slightly.

ELECTRONIC JOURNAL DISTRIBUTION

At the annual general meeting of the Biology Unit during the show in Omaha, the matter of distributing the journal as a PDF file via email or the website was proposed and discussed.

Currently, we distribute the journal either as a print copy by regular post, or as download files from the Unit website. The files on the website are separated by column subjects. There is no overall file that contains the complete journal issue.

The journal files are divided for two primary reasons. First, many members are only interested in the new issues section that pertains to their topical area and do not want to have or download the entire document.

Second, the file that contains the entire journal is typically large, though not so large that it exceeds the usual limit for standard downloads or emails. Even so, many members do not want to deal with a file of such size.

The advantages of distributing the entire document as a PDF are many. First, it would save a significant amount of expense if we reduce the quantity of print copies and the postage associated with mailing them. Second, members would be able to receive their copy of the journal as soon as it is released and would not have to wait for it to be printed and mailed.

Assets (as of 31 May 2019)	
Checking	\$7,212.00
Total	\$7,212.00
Expenses:	
Credit card fees to ATA	\$3.50
PayPal charges	\$9.21
Domain name	\$13.95
Website charges	\$101.49
Post Office box rental	\$96.00
Postage Canada	\$139.63
Postage Foreign	\$263.49
Postage U.S.	\$632.85
Printing	\$2,008.42
Supplies	\$121.51
Sales tax	\$162.49
ATA handbook publishing	
NTSS booth sharing	\$50.00
Entry fees, literature competition	
Extra mailings	
Total	\$3,602.54
Income:	
Dues	\$1,781.31
Donations	\$509.50
Total	\$2,290.81

Third, while the print copy is in black and white except for the cover page, the PDF copy would be in full color.

Of course, as with every situation, there are some disadvantages. First, if the member wishes to have a hard copy, they would have to print it themselves and that costs paper and ink, not to mention time and effort. Second, electronic subscriptions are lower than print subscriptions, so the dues the Unit receives would be reduced. We have made no cost analysis to see if the reduced costs would offset the reduced income having no idea how many would opt for electronic distribution, so that is unknown currently.

Also, we would continue to offer the print version to members who wish to have it, or have no access to receive an electronic copy.

Please provide us with your views on this proposal. You can write to either the Editor, or the Secretary via letter or email. The addresses are shown on the inside cover.

NEWS OF NOTE BIOLOGY UNIT FEATURED

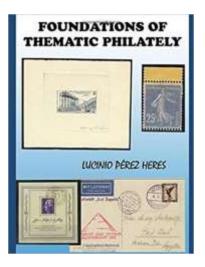
In the lead-up to the joint APS StampShow-ATA National Topical Stamp Show, the American Philatelic Society featured the Biology Unit in its June 2019 APS digital newsletter. The informational article included links to the Biophilately website and to sample pages of the Biology Unit "Spare Time" exhibit.

THEMATIC PHILATELY BOOK

Originally published in Spanish, a new English translation of *Foundations of Thematic Philately* has been released in June 2019. The author, Lucinio Pérez Heres, is a mining engineer from the University of Oviedo in Asturias, Spain. He has had a fondness for philately for as long as he can remember. He became interested in thematic philately in 1991, and began his first thematic collection shortly thereafter.

Some of his collections include, "The World of Mining;" "The Odyssey of Minerals;" and "Gods, Kings, and Tombs." He has also written several articles for philatelic magazines and given some lectures on thematic philately.

This book is a manual for starting your own thematic philately collection. Do you know what Tin Can Mail is, or other philatelic terms like balloon mail, *Boule de Moulins*, V-mail, I.R.C., precursor, carrier, paquebot, crash mail, and fancy cancel? Can you distinguish the different kinds of proofs, such as artist proof, engraving punch proof, workshop proof, ink proof, offset proof, plate essay, color proof, progressive proof, printing proof, un-adopted proof, deluxe proof, etc.?



You will find all the answers here, as well as recommended ways to arrange, present, and describe the material in your collection. The book provides some ideas on choosing the theme, creating the title and plan, and offering tips for developments. The last part of the book comprises the FIP Rules for Presentation and Evaluation applicable for exhibiting at the different levels.

Both print and digital versions of book are available on Amazon.

NEW ATA EXECUTIVE DIRECTOR

The American Topical Association, our parent organization, has named Jennifer L. Miller of Greer, South Carolina, as its new Executive Director. She is replacing Vera Felts who has been the Executive Director since 2009, and is retiring.

Miller is an enthusiastic topical collector and ATA member. She collects sheep, teapots, coffee, and Disney on stamps.

She has many years of customer service experience working for the Walt Disney Company and most recently has 13 years of business experience with Starbucks. She has a degree in education and was a teacher at the beginning of her career before spending some years raising her three children.

She is married to Martin Kent Miller, also an avid philatelist, who was previously the Chief Content Officer for the American Philatelis Society and editor of *The American Philatelist*.

Miller officially assumed her new position on 15 August. The new address for the ATA Headquarters is: P.O. Box 2143, Greer, SC 29652-2143. The email address and phone have not changed: *americantopical@msn.com*, and (618) 985-5100. Please welcome Jennifer to her new position.



NEW PENGUINS LOGO

The Penguins on Stamps Study Unit (POSSU) has adopted a colorful new logo for their organization. The design features "Tux," a stylized Emperor Penguin (*Aptenodytes forsteri*) in his formal penguin attire including a ceremonial sash with the words "I ♥ POSSU."

The logo was designed by Martin Kent Miller from Greer, South Carolina. The POSSU uses it on cinderella labels, note paper, and their newsletter, *The Rookery Report*.

The Emperor Penguin can live for 20 years and is the tallest and heaviest of all living penguin species. It is endemic to Antarctica. The male and female are similar in plumage and size, reaching 122 cm (48 in) in height and weighing up to 45 kg (99 lb).

If you are interested in joining or learning more about POSSU, you can visit their website at www.penguinstamps.org, or email gentoo172@yahoo.com.



TIGER COVER

The Cats on Stamps Study Unit (COSSU) was the featured study unit at the APS-ATA joint show this year in Omaha, Nebraska (see the show report on page 172). The study unit was celebrating its 40th anniversary. Among other materials and souvenirs, they were selling the pictured cover with an eye-catching color cachet of a tiger and franked with the Save Vanishing Species semi-postal stamp (Sc#B4). This stamp was issued in 2011, and withdrawn from sale at the end of 2018.

I purchased this cover and had it canceled at the USPS station at the joint show using the ATA 70th anniversary postmark.

By the way, I asked one of the ladies from the Stamp Fulfillment Center in Kansas City, who was working at the show to hand stamp all of the cancels, to give me an estimate of the quantity she had applied in her 15-year career with the Center. The answer: 1.5 million!

The cachet was created by artist Ole Nordhavn, who also happens to be the COSSU President.



The uncanceled cover is available from COSSU for \$5 plus \$1 postage. If you are interested in joining or learning more about COSSU, you can visit their website at www.catstamps.info, or email catmews1@yahoo.com.

OCTOBER IS STAMP COLLECTING MONTH

Everyone Recruit One!

To celebrate Stamp Collecting Month, the ATA is rolling out a special offer for ATA members. It's their *Everyone Recruit One* campaign, and they hope you will participate. For each new member you recruit in October, you will receive a \$5 checklist credit. If you recruit a former member after a lapse of more than a year, you will get a \$5 credit for that also. And, yes, you can recruit more than one member! If the new member signs up on the ATA website, be sure to let us know you are the member who recruited him/her.

PRIVACY POLICY

The General Data Protection Act is a set of rules that enable European citizens to learn how their personal data is used and allow them to control how that data is used by companies and organizations that collect that data. Because the ATA and the Biology Unit both have European members, they need to have a policy in place that spells out what personal data they collect and how they collect and use it.

The ATA is currently developing this policy and will publish it within the next few weeks. The Biology Unit must also adopt such a policy and most likely will use the same one as the ATA. It is also expected that the US and others will implement similar requirement in addition to those that already exist regarding sensitive personal data.

The policy will reset everyone to zero. In other words, all members will be opted out of personal information retention. The policy will specify exactly what personal information the organization will collect such as names, addresses, and other contact information. Information might also include collecting interests and other data. Each member will be informed of the policy and given the opportunity to opt in. The policy will be posted on the website and designated on all forms and other correspondence.

Currently, the ATA and the Biology Unit do not share any personal data with other organizations, and this is not expected to change. Sharing data within the organization will be addressed as part of the policy. Other details will include staff training, electronic security, and response plans. More information will be provided soon.

BOGUS STAMPS

Recently, there was an article in *The American Stamp Dealer & Collector* magazine titled, "The Abuse of Topical Collectors," by Richard Lehmann. (*ASD&C*, May 2019, p. 68). This article decried the prolific release of so-called "bogus" stamps by questionable production groups and called on the ATA to lead the way in putting an end to these issues.

ATA President Dale E. Smith, responded in another article published in the June edition of the same magazine (ASD&C, June 2019, p. 16). His article recaps some of the efforts made in the past by the stamp collecting community to thwart the production and sale of these items. He them presents the ATA's policy regarding them.

The bottom line is, until each of the countries allowing these stamps to be produced takes action to control them and prosecute these printers and publishers, nothing will happen to stop, or reduce the flow. These countries are being defrauded and their reputations and integrity besmirched.

It is not the responsibility of the ATA to be the world's policeman of this situation. The ATA does not have the staff, financial resources, or complete information to aggressively combat the large web of dishonest individuals and organizations involved in this scheme.

Further, it is not the job of the ATA to tell collectors what they should, or should not collect. Many collector do realize that these items are questionable, or even fake issues from fake "countries." But they are interested in having these things in their collection for their design, or because they depict a subject found on no other stamp in the world. Most topical collectors are not buying their stamps for investment purposes.

The ATA does have the responsibility to inform and educate topical collectors about these fraudulent issues, and to make buyers aware that these items are, at best, labels and cinderellas and will be worth nothing when it comes time to sell them.

Here in *Biophilately*, we try to do this very thing by flagging the entries in our new issues sections. We know that many members still may wish to add them to their collections. And this also provides a warning to other members, who will undoubtedly encounter them in dealer stocks, or on-line markets, about their questionable nature.

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APS-ATA NATIONAL SHOW 2019

Jack R. Congrove, BU1424

For the second year in a row, the American Topical Association (ATA) partnered with the American Philatelic Society (APS) to host a joint stamp show. The APS and ATA are the two largest philatelic organizations in the United States. Each organization has traditionally held an annual national-level stamp show: APS StampShow and ATA National Topical Stamp Show (NTSS). These shows are held in different cities around the country each year.



A large crowd assembled for the Military Working Dog first day ceremony. Many more arrived after this photo was taken.

Last year, the two organizations held a hugely successful joint show in Columbus, Ohio, and that provided the motivation to try another one this year in Omaha, Nebraska. The show took place at the CHI Health Center, an immense convention and arena facility, in Omaha on 1–4 August 2019.

The show featured 64 dealers, six auction houses, and 849 frames of exhibits. In addition to the dealers and exhibits, the activities included meetings and presentations by several of the more than 30 societies that attended the show, annual general meetings of both the APS and ATA, receptions, tours, and many other activities such that it was not possible to participate in all of them.

The cooperation and coordination between the APS and ATA continued to be excellent. The ATA Show Manager, John Hamman from Florida, reported that both societies contributed to the planning and execution of the event. The APS, as the larger organization, provided the majority of the effort, which included rental of the venue, coordination of the dealer and exhibitor participation, and much of the advertising. The ATA provided volunteers and support for exhibits, presentations, publicity, awards, and the Youth activities area, as well as assisting in many other areas.





Warren Buffett at YPLF booth (Jerry Sims photo)

Both the APS and ATA had large booths next to each other at the show entrance that were continually interacting with visitors. Nebraskan investor Warren Buffett visited the Young Philatelic Leaders booth on Sunday. Apparently he is a topical collector. The ATA gained 35 new members during the four-day show.

Attendance figures at the show are unknown at present, but from my unscientific observations, the quantity each day seemed lower than last year's exceptional show. Nevertheless, the show was well attended each day and actually seemed to be crowded on Thursday and Friday. Responses from dealers that I heard were all positive and at least one reported that this had been his best show ever in terms of sales. It appeared evident that attendance by a combination of traditional and topical collectors added a lot of energy to the event.

The success of these past two joint events has resulted in agreements between the two organization to continue hosting joint shows in the future. In fact, even prior to this show, the ATA and APS had signed agreements to hold joint events in Hartford, Connecticut, next year and in Rosemont, Illinois, in 2021. At the show this year, they signed another agreement to jointly sponsor a show in Sacramento, California, in 2022.

The success of this joint venture has attracted a third partner for the show next year in Hartford. The American First Day Cover Society (AFDCS), which produces its annual Americover show, will combine it with the other two to form a triple event next year. Each of these three shows is a World Series of Philately (WSP) accredited event, so the exhibits will be split into three sections each with their own set of awards and Grand Award winners. Of course, the APS StampShow is also the venue for the annual Champion of Champions competition in which the Grand Award winners from each of the 30 WSP compete for the Champion of Champions prize.

The Hartford show should be a very large event and the plan calls for two show hotels to accommodate all attendees. It is strongly recommended that you make your reservations as soon as the arrangements with the venues are announced so that you can be assured of a room. This year the show hotel was sold out well before the event.

On Thursday at noon, the US Postal Service held a First Day of Issue ceremony for the Military Working Dog (MWD) booklet stamps. The booklets contain five blocks of the four stamps showing the common breeds of military working dogs: Dutch Shepherd, German Shepherd, Labrador Retriever, and Malinois. The standing room only ceremony was treated to some inspiring and touching remarks by speakers with personal experiences and connections to MWD animals. MWD Morty, a German shepherd, and his handler, SSgt Blake A. Radey, from the 55th Security Squadron at nearby Offut Air Force Base were a popular attraction at the event.

As I watched the many photos being taken of Morty and his handler, I jokingly mentioned to the non-commissioned officer-in-charge that Morty was really famous now and would never be able to work undercover again. The sergeant laughed and told me that Morty, who sports a floppy ear, had just returned from a deployement in the Middle East and that everyone there knew all about the dog with the "floppy ear."



MWD Morty & handler



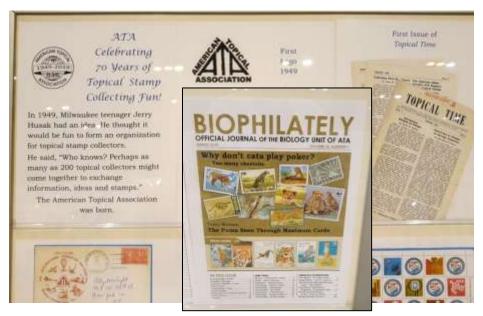
The ATA celebrated its 70th anniversary as part of the show festivities. The Friday show cancel (see page 170) marked the event. The ATA displayed several exhibit frames devoted to the organization. One showed historical artifacts from the ATA files and included an image of the March 2019 edition *Biophilately* journal cover. A birthday cake helped celebrate the anniversary at the ATA President's Reception on Friday evening.

The ATA held their annual meeting of the Board of Directors on Tuesday and Wednesday before the show opened. Look for a

complete report in an upcoming edition of *Topical Time*. Much of the agenda and discussion dealt with the "changing of the guard" as new officers and a new Executive Director were set to take office.

Dawn Hamman, from Venice, Florida, was elected as the new ATA President taking the place of Dale E. Smith from Kansas City, Missouri, who had served as President for the past three years. She officially assumed the office

following the Annual General Meeting on Friday afternoon. Also, Jennifer L. Miller attended as the incoming Executive Director (see page 169) as she transitioned to take over from Vera Felts, who retired at the end of August. Felts accepted a consulting contract offered by the ATA to run through the end of the year to help coordinate and smooth the transition. The meeting was so well attended that more chairs had to be brought in to the large room.



In addition to Hamman as the new President, Jeffrey Hayward from Staten Island, New York, was elected as the First Vice President, and Jack Congrove, from Fort Lewis, Washington, was re-elected as the Second Vice President. Also, Dale Smith contined to serve on the Board as a Director and Christopher Dahle from Cedar Rapids, Iowa, was re-elected as a Director.

At the APS General Meeting on Saturday, our Unit President, Laurie Ryan received her 25-year membership pin from APS President Robert Ziegler.

The Biology Unit held its annual meeting on Saturday at 11:00 AM in the convention center presided over by President Ryan. Twelve members were present including members from Belgium and Canada. There was no business conducted, as is usual for this meeting. Ryan and other officers provided news and information about ATA activities and plans for the shows in the coming years.

One of the other themes at the show was the celebration of the 150th anniversary of the completion of the Transcontinental Railroad. The Union Pacific company, which is headquartered in Omaha, was a show sponsor and they arranged to have their steam locomotive No. 4014 "Big Boy" on display at a rail spur only about one quarter mile from the show.

In an unfortunate scheduling conflict, the Big Boy ceremony was held at the same time as the Biology Unit meeting. Incoming ATA President Dawn Hamman, who is also a Unit member, was one of the speakers at this event.

The Union Pacific Big Boy is the only operational engine of the 25 that were built. Only eight still exist. It was built in 1941, and is the largest operational steam locomotive in the world. Its overall length with its tender is almost 133 feet (40.5 m). The locomotive itself weighs 762,000 lb (345,637 kg). With the tender, the total weight is 1.25 million lb (566,990 kg).



Laurie Ryan receiving 25-year award



Union Pacific No. 4014 "Big Boy"

The show Celebration Banquet was held on Saturday evening at the Omaha Hilton hotel adjacent to the convention center. This event was where the honorary awards and the major exhibiting awards were announced and presented. The ATA Distinguished Topical Philatelist award, which is the organization's highest honor was presented by President Hamman to Aimee Devine from Janesville, Wisconsin. See *Biophilately*, Vol. 68 (2) for a description of Aimee's contributions to the ATA.

The APS inducted three persons into its Hall of Fame. One of these was ATA founder Jerome (Jerry) Husak. The others were Thomas J. Alexander and Michael Mellone. Husak was a teenager when he started the ATA in 1949.

The Luff Awards are the most prestigious given by the APS. This year the recipients were Thomas M. Lera, R. Timothy Bartshe, and Kathryn J. Johnson.

Personally I think the ATA awards, and especially the Biology Unit awards outshone the awards given by the APS and the other societies.

Only two of the Biology Unit awards were given out by the jury. Roger Van Laere, a Unit member from Belgium, received a Large Vermeil award and won the Biology Unit First Place award for *Atlantic Puffin: Icon of the Isle of Lundy*.



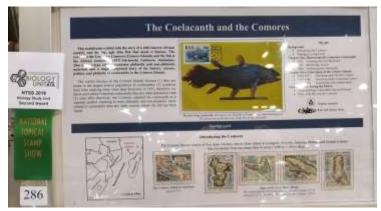
Biology Unit 1st Award

In the APS Open exhibition, Robert J. Faux won the Grand Award for *Postal History of the 1861 United States 24-cent Adhesive*. Behruz Nassre-Esfahani won the Reserve Grand Award for *Persia, Qajar Postal Stationery, Issued 1876–1925*.



Biology Unit 1st, 2nd, and 3rd Awards

Susan B. Jones, also a Unit member from Illinois, received a Vermeil award and won the Biology Unit Second Place for *The Coelacanth and the Comores*.



Biology Unit 2nd Award

The Open Single Frame Grand Award went to Mick Hadley for *Uses of the 1908 U.S. Coils*. The Union Pacific Most Popular Award in the APS StampShow went to Rick Gibson for *Smokey Bear Issue of 1984*.

In the NTSS exhibition, Norman F. Jacobs, Jr. won the Grand Award for *Tennis – From Game of Kings to Sport for All*. Unit member Dawn Hamman won the NTSS Reserve Grand Award for *Backyard Chickens – Raising Chickens at Home, Then and Now*.

The NTSS Mary Anne Owens One Frame Grand Award went to Mark C. Maestrone for *Men's Gymnastics: Dressed to Win*. Edward Bergen received the NTSS Most Popular Award for *Walt Disney's Second Super Star: Donald Duck*.



NTSS Grand Award

The APS StampShow is the venue for the World Series Multiframe Champion of Champions Award. This year there were 30 competitors entered, the Grand Award winners from each of the WSP shows since the last C-of-C in 2018.

The winner for 2019 was Dr. Yamil H. Kouri, Jr. representing FLOREX 2018 for *The First Postal Issues of Spanish Antilles*.

In the Literature exhibition, our own Associate Editor, Michael Kogan, received a Large Vermeil for his website www.paleophilatelie.eu in the Electronic Media division.



NTSS Reserve Grand Award



Mary Anne Owens One Frame Grand Award

Wayne Youngblood received a Large Gold for *Topical Time* in the Journals division.

On Monday after the state of the stat



SR-71 at SAC Museum

On Monday after the show, the ATA offered an all-day tour that included visits to the Strategic Air Command Museum, the Mormon Trail Center, and the Durham Museum. Each venue offered interesting and fantastic attractions. I had never actually seen a B-36 in person. It is the largest mass-produced piston-engine aircraft ever produced. Only five still exist.

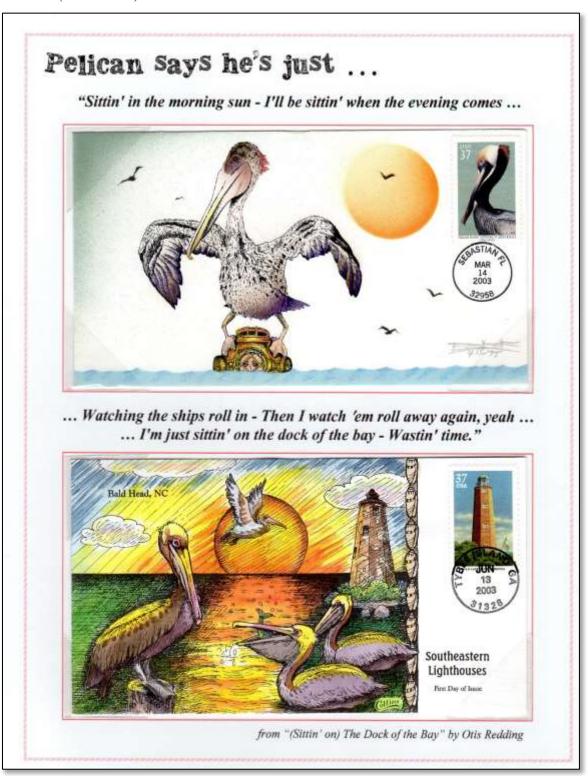
Next year the joint APS-ATA-AFDCS show will be held at the Connecticut Convention Center in Hartford, Connecticut, on 20–23 August 2020. The APS is polling its members for a new, more descriptive and inclusive name for these joint shows. Send them your suggestion by 12 September.

STAMP STORIES

Jack R. Congrove, BU1424

This is a continuation of the Biology Unit one-frame exhibit "What Does (your topic) Do in Its Spare Time?" shown at the joint ATA-APS show in Columbus, Ohio. The remiaing pages will appear in upcoming editions.

Page 9: Pelicans (Susan Jones)



Page 10: Stegosaurs (Susan Jones)



APS SUMMER SEMINAR

Jack R. Congrove, BU1424

During the last week of June, I attended the Summer Seminar on Philately hosted by the American Philatelic Society (APS) at the American Philatelic Center (APC) in Bellefonte, Pennsylvania. This year the APS celebrated the 40th anniversary of this annual event.

For those who may be unfamiliar with the program, the Summer Seminar is an educational experience that is sort of like a mini-college term. It offers several two-day and four-day courses taught by philatelic experts. You can sign up for one four-day course, or for either one or two two-day courses. The cost depends on the courses you select and includes added general sessions and electives offered each day.



Philatelic Research Seminar by Daniel Piazza, Assistant Curator, National Postal Museum

A general session from 8:00 to 8:45 AM begins each day followed by the morning session of your selected course. Lunch, which is included in your enrollment fee, lasts from 11:30 AM to 12:45 PM. The afternoon session of your selected course ends at 3:00 PM, and one-hour elective courses start at 3:30 PM. At least four elective classes are offered to choose from and they are different classes each day.

This year the Summer Seminar had record 105 students enrolled for the various courses. This was the first time that the enrollment exceeded 100. I am not sure who the youngest attendee was. There were two Youth Scholarship winners attending the seminar and Ameen Zafiruddin, who was in one of my classes, is 17 years old. For sure the oldest student was Wallace Craig from California who celebrated his 92nd birthday during the event. It was his first time at the Summer Seminar, which shows you that it is never too late to learn something new.

Dr. Cathy Brachbill, APS Education Director, oversees and organizes the Seminar. Ross Jones, Education Program Coordinator, coordinates all the events. Their goal is to ensure that the students have great learning opportunities and enjoy their time in Bellefonte. From my point of view, they achieved this goal.

One of the bonus effects of the Seminar is the chance to meet, converse, and socialize with other dedicated philatelists. I saw several good friends and acquaintances there and made several new friends as well.

Another benefit of the location is the chance to visit the APS offices and the American Philatelic Research Library (APRL). Chief Membership Officer, Ken Martin, conducted a guided tour of the APS facility including all the areas that are normally off-limits to the public. The APC owns the restored Match Factory building and occupies about 55,000 of the total 100,000 square feet of space. The other footage is rented to local businesses and the rent received covers most of the facility expenses.

It is an impressive facility and I was most impressed in the warehouse area where donated philatelic material is stored and sorted. This very large area is overseen by volunteers Leonard and Darleen Bloom, who were also handling sales in the Stamp and Cover Shop. There is so much material there, that I think it would take a company of soldiers many months to sort it all. The sales area was offering terrific bargains on collections, individual stamps and covers, and other material just so they could clear it out. I purchased several items at steep discounts.

Librarian Scott Tiffney, led tours of the APRL. It is the largest philatelic library in the United States and has one of the world's largest and most accessible collections of philatelic literature. Its nearly four miles of shelving contain more than 23,000 book titles and 5,700 journal titles. They are working to increase their digital collections. The

library is open to the public and APS members can borrow books directly by mail. There were also many excess volumes on sale at the Stamp and Cover Shop at super bargain prices.

While I was there, I spent some time scanning about three dozen back issues of publications that were missing from digital archives I am assembling. There is no cost for this when you do it in person.

On Monday after classes, a bus load of us visitors went on a guided walking tour of the Penn State University campus that included dinner in the campus cafeteria. It has been 50 years since I graduated from college and the cafeteria certainly has changed since then. The food was good and there was a huge variety, from entrees to short order items, and it was "all-you-can-eat." When I was 19 years old, I could eat A LOT. Not so much anymore.

On Wednesday evening, the APS held its Distinguished Philatelist Banquet in Sundman Hall preceded by a reception offering cocktails provided by Big Spring Spirits distillery, conveniently an APC tenant business located literally next door. The honoree this year was



Brisk Sales at the Stamp and Cover Shop

Wayne Youngblood. Youngblood is a well-known philatelic author and editor, who has also served on the APS Board of Directors and as an expert for American Philatelic Expertizing. He is the editor of the ATA journal *Topical Time*. In addition, he was teaching one of the four-day classes on "Stamp Technology," and has taught at the Summer Seminar for 28 years.

If you are wondering, I took two of the two-day classes. The first was "Collecting and Exhibiting Picture Postcards" taught by Phil Stager and Bill Schultz. This class dealt more with the aspects of exhibiting these cards than with their identification and production. However, the instructors provided many useful tips on treating these cards. The class also provided example exhibits and discussions with experienced exhibitors.

The second course I took was "Facets of Highly Successful Exhibits" taught by Bill Schultz. This class also had several philatelic judges and advanced exhibitors as students. The discussions generated among the class members were both interesting and informative. I found the advice I received to be highly useful to help in improving my exhibit assembly and production.

I plan to attend the seminar again next year and strongly recommend it to others interested in learning more about the many aspects of our hobby.

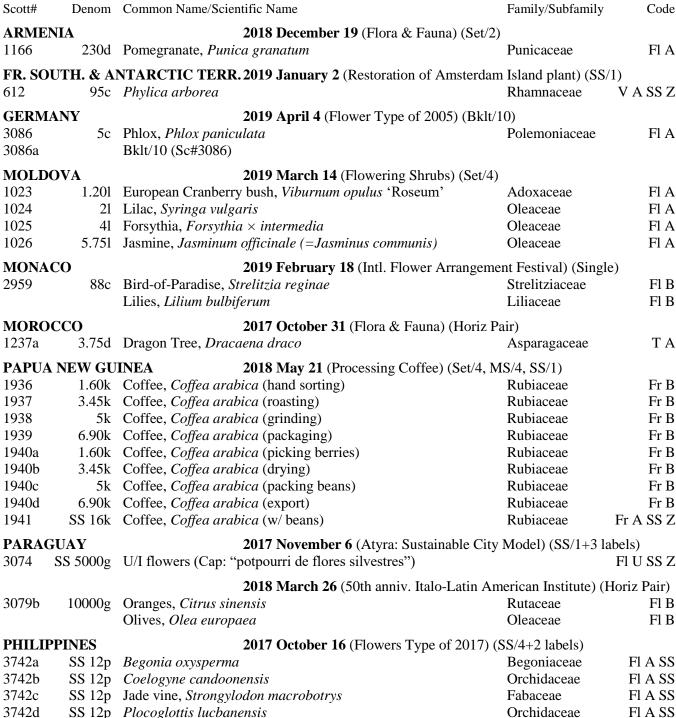


BOTANY

Editor

Christopher E. Dahle, BU1269

New Listings



PHILIPP	INES (co	ontinued) 2018 April 23 (Flowers) (Set/5)		
3772	1p	Jasmine, Jasminum sambac	Oleaceae	Fl A
3773	5p	Hibiscus, <i>Hibiscus</i> sp.	Malvaceae	Fl A U
3774	12p	Shrub Vinca, Kopsia fruticosa	Apocynaceae	Fl A
3775		Bird-of-Paradise, <i>Strelitzia reginae</i> (issued: 2018 October 9)	Strelitziaceae	Fl A
3776	•	Carruthers' Falseface, Pseuderanthemum carruthersii (=reticula	atum) Acanthaceae	Fl A
PITCAIR	N ISLA	NDS 2018 November 11 (Centenary End of WW	VI) (MS/6)	
849a		Poppy, Papaver rhoeas	Papaveraceae	Fl B
849f		Poppy, Papaver rhoeas	Papaveraceae	Fl A
PORTUG	FAL	2018 May 7 (250th anniv. Ajuda Botanical	Gardens) (Set/4 &	SS/1)
4012	(53c)	Gardens (w/ fountain) (inscr. "N")		VU
4013	(65c)	U/I trees (inscr. "A")		TAU
4014	(86c)	U/I trees (w/ pathway) (inscr. "E")		T A U
4015	(91c)	U/I trees (w/ stairway) (inscr. "I")		TAU
		2018 July 13 (Chocolate) (Set/4 & SS/1)		
4045	53c	Cacao, Theobroma cacao (pod & seeds)	Malvaceae	Fr A
4049	SS €1.50	Cacao, Theobroma cacao (pod & seeds)	Malvaceae	Fr A SS Z
PORTUG	GAL (Ma	deira) 2018 June 22 (600th anniv. Discovery of M	Madeira) (Set/4 & S	SS/1)
369	53c	Corn, Zea mays (w/ cows)	Poaceae	Fr B
370	86c	Dragon Tree, Dracaena draco (w/ people)	Asparagaceae	ТВ
371	91c	Sugar Cane, Saccharum officinarum (w/ cows)	Poaceae	V B
372 S	SS €1.50	Dragon Tree, Dracaena draco (w/ man)	Asparagaceae	T B SS Z
ROMAN	IA	2018 August 17 (Flora & Fauna Domogled-C	erna Valley Park) (S	et/4 & SS/4)
6158	1.601	Edraianthus graminifolius ssp. kitaibelii	Campanulaceae	Fl A
6158a		MS/5 + label (Sc#6158)		
6159	21	Primula auricula ssp. serratifolia	Primulaceae	Fl A
6159a		MS/5 + label (Sc#6159)		
Note		SS/4 (Sc#6158–61) (printed in limited quantities)		
RUSSIA		2019 March 26 (Apple Varieties) (Block/4		
8009a		Bogatyr, $Malus \times domestica$	Rosaceae	Fr A
8009b		Belyi Naliv, Malus × domestica	Rosaceae	Fr A
8009c		Antonovka Obyknovennaya, $Malus \times domestica$	Rosaceae	Fr A
8009d	45r	Orlik, $Malus \times domestica$	Rosaceae	Fr A
		PRINCE IS. 2016 November 10 (Rotary, Butterflies &		
3202a		Brillantaisia owariensis	Acanthaceae	Fl B
3202b		Parrot's Beak, Heliconia psittacorum	Heliconiaceae	Fl B
3202c	31000d	Sobralia macrantha	Orchidaceae	Fl B
3202d	31000d	Cypripedium lowii	Orchidaceae	FIB
3220 SS	120000d	Sobralia macrantha	Orchidaceae	FI B SS Z
		2017 March 13 (Orchids) Set/4; SS/1		
3252a	31000d		Orchidaceae	Fl A
3252b	31000d	Laeliocattleya 'Gold Digger'	Orchidaceae	Fl A
3252c		Cattleya amethystoglossa	Orchidaceae	Fl A
3252d		Dendrobium victoriae-reginae	Orchidaceae	Fl A
32/1 SS		Laelia cinnabarina (also LL margin)	Orchidaceae	FI A SS Z
	ıvıargın	R: Laelia flava	Orchidaceae	Fl A SS Z

ST. VI	NCENT	2018 December 31 (Animals in World Wa	ar I) (MS/4 & SS/2)	
4163	Margin	Bot: Poppy, Papaver rhoeas	Papaveraceae	Fl Z
4164	Margin	LL & LR: Poppy, Papaver rhoeas	Papaveraceae	Fl SS Z
SINGA	PORE	2018 July 24 (Native Ginger Plants) (Set/4	.)	
1900	(30c)	Zingiber singapurense (inscr. "1st Local")	Zingiberaceae	Fl V A
1901	70c	Cheilocostus globosus	Costaceae	Fl V A
1902	90c	Phrynium hirtum	Marantaceae	Fl V A
1903	\$1.30	Conamomum xanthophlebium	Zingiberaceae	Fl V A
SLOVE	ENIA	2019 March 22 (Hydrangeas) (Set/3 & SS	/1)	
1329		Panicle Hydrangea. <i>Hydrangea paniculata</i>	Hydrangeaceae	Fl A
1330		Mountain Hydrangea, Hydrangea macrophylla ssp. serrata	Hydrangeaceae	Fl A
		(Syn: Hydrangea serrata)		
1331	€1.31	Oakleaf Hydrangea, Hydrangea quercifolia	Hydrangeaceae	Fl A
1332	SS €1.40	Bigleaf Hydrangea, Hydrangea macrophylla	Hydrangeaceae	Fl A SS
SOUTE	H AFRICA	2018 May 31 (National Parks) (Set/5)		
1574a	(4.20r)	U/I tree (Mokala National Park)		TAU
SPAIN		2018, November 7 (Eucalyptus Leaf) (Sin	ole)	
	as a eucaly	ptus leaf and impregnated with eucalyptus scent.	gic)	
4315	(€1.45)	, Eucalyptus sp. (inscr. "C")	Myrtaceae	V A
		2019 January 28 (Almería: 2019 Gastrono	omic Capital) (Single)
4337	(70c)	Stylized Tomato (heart shaped w/ other vegetables) (inscr. "A2"	1	Fr S B
SRI LA	NKA	2019 February 26 (Spices) (Set/4 & SS/4)		
2176		Cinnamon, Cinnamomum zeylanicum	Lauraceae	V A
2177		Pepper, Piper nigrum	Piperaceae	Fr A
2178	15r	Cloves, Syzygium aromaticum	Myrtaceae	Fl A
2179	15r	Nutmeg, Myristica fragrans	Myristicaceae	Fr A
2179a		SS/4 (Sc#2176–79)		
SUDAN	V	2018 (Surcharges) (Set/4)		
667	£10	Date palm, <i>Phoenix dactylifera</i> (Sc#155a surch)	Arecaceae	ΤA
SWEDI	EN	2018, May 3 (Edible Plants & Flowers) (H	oriz Strip/5 & Bklt/1	0)
2821a		Löktrav (Garlic Mustard), Alliaria petiolata	Brassicaceae	V B
	(-)	Luktviol (Violet), Viola odorata	Violaceae	Fl B
2821b	(9k)	Ramslök (Wild Garlic), Allium ursinum	Amaryllidaceae	V B
		Tusensköna (Daisy), Bellis perennis	Asteraceae	Fl B
2821c	(9k)	Vatarv (Chickweed), Stellaria media	Caryophyllaceae	V B
		Jordreva (Ground Ivy), Glechoma hederacea	Lamiaceae	Fl B
2821d	(9k)	Maskros (Dandelion), Taraxacum campylodes	Asteraceae	Fl B
2021	(01)	Alm (Elm Seeds), <i>Ulmus procera</i>	Ulmaceae	Fr B
2821e	(9k)	Sommargyllen (Bittercress), Barbarea vulgaris	Brassicaceae	FI V B
20216		Brännässla (Nettle), <i>Urtica dioica</i>	Urticaceae	Fl V B
2821f		Bklt/10 (2ea Sc#2821a–e)		
202:		2019 January 10 (Tulips) (Coil Set/2, Hor		
2834	5k	Tulipa × hybrida	Liliaceae	Fl A
2835	21k	Tulipa × hybrida	Liliaceae	Fl A
2836a	(9k)	Tulipa × hybrida (one pink)	Liliaceae	Fl A
2836b	(9k)	$Tulipa \times hybrida$ (one pink & yellow w/ stamens)	Liliaceae	Fl A

SWEDE	N (continu	ned)		
2836c	(9k)	·	Liliaceae	Fl A
2836d	(9k)	<i>Tulipa</i> × <i>hybrida</i> (one pink & one pink/yellow)	Liliaceae	Fl A
2836e	(9k)	$Tulipa \times hybrida$ (one pink/yellow & one red/yellow)	Liliaceae	Fl A
2836f		Bklt/10 (2ea Sc#2836a–e)		
SWITZE	RLAND	2018 November 15 (Medicinal Plants) (M	IS/4)	
1703a	100c	Auricula Muris (Mouse-ear), Pilosella officinarum	Asteraceae	V A
1703b	100c	Aconitum, Aconitum heterophyllum	Ranunculaceae	V A
1703c	100c	Sea Spurge, Euphorbia paralias (=Tithymalus paralias)	Euphorbiaceae	V A
1703d	100c	Scolymus non aculeatus (Artichoke), Cynara cardunculus	Asteraceae	V A
		2019 May 2 (Vintner's Festival) (Horiz St	trip/3)	
1727a	100c	Grapes, Vitis vinifera	Vitaceae	Fr A
		2019 May 2 (Land Art by Ivo Moosberger	r) (Block/4)	
1728	85c	Buttercup Rings, Ranunculus acris	Ranunculaceae	Fl B
1729		Willow Rod Spheres, Salix sp.	Salicaceae	V B U
SYRIA		2018 (National Environment Day) (Single)	
1771	£450	U/I tree (against orange & blue bkgrd)	,	TAU
TANZAN		2018? (Surcharges) (Set/5)		
2829		Cloves, Syzygium aromaticum (Sc#2520 surch)	Myrtaceae	Fr A
			Wiyitaccac	IIA
THAILA		2019 February 7 (Roses) (Single)	D	T-1 A
3050	5b	Roses, $Rosa \times hybrida$ (impregnated w/ rose scent)	Rosaceae	Fl A
TOKELA		2019 May 1 (Tradition of Sharing Foods)	(Set/4 & SS/4)	
501		Taro leaves, Colocasia esculenta	Araceae	VA
502	\$1.40	, 1	Moraceae	VA
504	\$3	Coconuts, Cocos nucifera	Arecaceae	Fr A
504a		SS/4 (Sc#501–04)		
	AD & TO	` ` `	tanic Gardens) (Set/	5 & SS/1)
Each stan	np is shap	ed like a leaf.		
943	\$1	Ixora, <i>Ixora</i> sp.	Rubiaceae	Fl A U
944	\$2	Buttercup, Ranunculus sp.	Ranunculaceae	Fl A U
945	\$3.25	Black-eyed Susan, Thunbergia alata	Acanthaceae	Fl A
946	\$4	Flamboyant, Delonix regia	Fabaceae	Fl A
947	\$6.50	,	Euphorbiaceae	V A
948	SS \$30	Double Chaconia, Warszewiczia coccinea	Rubiaceae	Fl A
UKRAIN	NE .	2018 July 13 (Flowers) (Set/4)		
1159	5h	Dog Rose, Rosa canina	Rosaceae	Fl A
1160	5h	Lungwort, Pulmonaria obscura	Boraginaceae	Fl A
1161	5h	St. John's Wort, Hypericum maculatum	Hypericaceae	Fl A
1162	5h	Valerian, Valeriana officinalis	Caprifoliaceae	Fl A
		2018 November 30 (Flora & Fauna Carpa	thian Biosphere Res	erve)(MS/6)
1183b	7h	Beech tree, Fagus sylvatica	Fagaceae	TAMS
1183d	7h	Rhododendron myrtifolium	Ericaceae	Fl A MS
1183e	7h	Narcissus angustifolius	Amaryllidaceae	Fl A MS
URUGU	AY	2018 December 21 (Centenary End of W	WI) (Single)	
2655		Poppies, Papaver rhoeas	Papaveraceae	Fl A
	- r	**	1	

UZBE	EKISTAN	2019 January 24 (Flowers) (MS/4)			
872a	900s	Pheasant's Eye, Adonis vernalis	Ranunculaceae	Fl A MS	
872b	1000s	Johnny Jump Up, Viola tricolor	Violaceae	Fl A MS	
872c	2700s	Iris hippolyti	Iridaceae	Fl A MS	
872d	2800s	Marigold, Tagetes erecta	Asteraceae	Fl A MS	
VIET	NAM	2018 March 1 (Bauhinia Flowers) (Set/2 &	SS/1)		
3592	3000d	Orchid Tree, Mountain Ebony, Bauhinia variegata (denom LL)	Fabaceae	Fl A	
3593	3000d	Orchid Tree, Mountain Ebony, Bauhinia variegata (denom LR)	Fabaceae	Fl A	
3594	SS 14000d	Orchid Tree, Mountain Ebony, Bauhinia variegata	Fabaceae	Fl A	
WALLIS & FUTUNA 2018 September 5 (Frangipani Flowers) (MS/4)					
803a	55fr	Frangipani, <i>Plumeria rubra</i> (red flowers)	Apocynaceae	Fl A MS	
803b	55fr	Frangipani, <i>Plumeria alba</i> (white flowers)	Apocynaceae	Fl A MS	
803c	55fr	Frangipani, <i>Plumeria rubra</i> (pink flowers)	Apocynaceae	Fl A MS	
803d	55fr	Frangipani, <i>Plumeria alba</i> (yellow flowers)	Apocynaceae	Fl A MS	

MALAYSIA SOUR FRUITS

On 19 June 2019, Malaysia issued a set of three stamps and a SS/1 octagonal stamp showing four variants of the "asam" plant and fruit. The stamps highlight the use and diversity of asam and how the plant grows and spreads in the natural environment. The fruits are found in the forests of Peninsular Malaysia and in Sabah and Sarawak.

According to Haidan Abdul Rahman, head of the Malaysia Post Philatelic

Unit, "Often the asam is made into a pickle and the stamp series will show the other side of its use in cuisine and medicine which up to now, is rarely known by our society."

Each stamp was printed in quantities of 200,000 along with 22,000 of the souvenir sheet.

The False Mangosteen (*Garcinia xanthochymus*) fruit is 5–9 cm diameter containing yellow flesh and five oblong seeds.

Asam Embang (*Mangifera pajang*) can be up to 20 cm diameter with sweet and juicy flesh.

Asam Kelubi (*Eleiodoxa conferta*) is often pickled and used as a substitute for tamarind.

The Tamarind (*Tamarindus indica*) produces a pod-like fruit that contains a brown, edible pulp used in cuisines around the world.









LICHENS

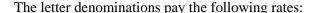
On 27 June 2019, Belarus issued a set of three stamps and a souvenir sheet of six showing lichens. Each stamp also shows a small insect (see the listing in the Entomology column).

There are not many stamps that feature lichens. The American Topical Association dATAbase from which it generates its topical checklists shows only 25 entries pertaining to this botanical subject not counting these. It could be easy to acquire a complete collection of this topic.

Marina Vitkovaskaya designed the stamps based on artwork by Alexander Mityanin. They were printed on chalk-surfaced paper using offset lithography by "Bobruisk Integrated Printing House named after A. T. Nepogodin," and perforated 13×13½.

Each design was issued in a separate miniature sheet of nine (4,000 sheets

each) along with a souvenir sheet of six (15,000 sheets) containing two of each design.



A (42k): Domestic letter up to 20 grams weight within Belarus.

M (1.38r): International air mail postcard

H (1.50r): International surface letter up to 20 grams weight

Lichens are organisms formed as a result of the symbiosis of a fungus with different combinations of algae and/or cyanobacteria. Lichens are important for the biosphere. They grow on rocky and sandy terrain where there is no soil and help to break these down to form soil. Lichens also provide living conditions for other organisms.

Lichens are used to obtain dyes, sugar, alcohol, and some medicinal substances. They are among the first living organisms to suffer from air pollution. Their reaction to air pollution is used in the lichen-indication method for assessment of the degree of air pollution in cities and in forests.

The first stamp shows the Common Orange Lichen (*Xanthoria parietina*). It grows on rocks, walls, or tree bark and has been reported in all continents except South America and Antarctica. This lichen also appears on the tree bark in the right-hand margin of the souvenir sheet.

The middle stamp shows the Lungwort Lichen (*Lobaria pulmonaria*). This lichen consists of a fungus and a green algal partner living together in a symbiotic relationship with a cyanobacterium—a symbiosis involving members of three kingdoms of organisms. It occurs in Europe, Asia, North America, and Africa, and is considered threatened in many areas.

The final stamp shows Devil's Matchsticks (*Cladonia floerkeana*). It is a symbiosis of an algae and a fungus and grows in damp places and on rotting wood. It is found in Europe and North America.



NEW PLANTS IN THE PHILATELIC HERBARIUM

Christopher E. Dahle, BU1269



Juniperus semiglobosa CUPRESSACEAE

Common Name: Himalayan Pencil Juniper

Synonyms: J. semiglobosa var. drobovii, J. semiglobosa var. talassica, J. semiglobosa ssp. talassica

Erect, evergreen tree with a rather loose and narrow often weeping head growing 10–20 m. Found in mixed conifer forest on open rocky slopes or outcrops, juniper woodland, glacial moraines (often forming groves), subalpine scrub, river terraces, scree slopes and other dry, stony ground at elevations from 1550–4350 m. Range from Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Afghanistan, western China (Xinjiang, Xizang), Pakistan, and northwestern India to Nepal.

Uzbekistan, Sc#861c. Issued 6 August 2018, in a MS/8 featuring flora and fauna of Zomin Nature Reserve. Designed by U. Yusupaliev. Print run of 8,000.



Eremurus chloranthus ASPHOLDELACEAE

Common Name: Foxtail Lily Synonyms: *Henningia chlorantha*

Perennial herb, with vertical short rhizomes and tuberous roots with basal, linear leaves. Inflorescence usually a dense elongated many-flowered raceme, 120–150 cm. Listed as extinct in Uzbekistan. Native to western and central Asia up to 6000 m.

Uzbekistan, Sc#861e. Issued 6 August 2018, in a MS/8 of flora and fauna of Zomin Nature Reserve. Designed by U. Yusupaliev. Print run of 8,000.



Tiputinia foetida BURMANNIACEAE

New genus of flowering plants described in 2007. Single individual of this achlorophyllous mycoheterotroph was found flowering in leaf litter at the Tiputini Biodiversity Station in Amazonian Ecuador. Almost completely subterranean herb, 2 cm high when in flower. Single flower, with six olive yellow translucent tepals, 4.5–5 cm diameter, with leaves and bracts spirally arranged beneath the flower. Flower emits a foul fish-like odor.

Ecuador, Sc#2224d. Issued 11 December 2018, in a MS/9 to commemorate the scientific contributions of San Francisco University in Quito. Printed by offset in quantity of 2,000. Designed by Santiago Gangotena and Ricardo Vásquez.



Trifolium arvense FABACEAE

Common Names: Hare's-foot Clover; Stone Clover, Oldfield Clover

Synonyms: 11

Annual (occasionally biennial) herb, 10–40 cm, with erect to ascending hairy stems, and alternate trifoliate leaves. Minute flowers form dense, fuzzy round to cylindrical heads 1.5–3 cm. Blooms June to September. Grows in part shade or sun on dry sandy soil in disturbed sites. Originally from Eurasia. Considered invasive in the U.S.

Netherlands, Sc#1567b. Issued 9 April 2018, in a MS/10. The second in a series of four, one for each season, titled "Experience nature: Wildflowers." Designer Frank Janse, Gouda from amateur photographs sent to PIXFACTORY website. Printed by Joh. Enschedé Security

Print, Haarlem, Netherlands.



Briza media POACEAE

 $Common\ Names:\ Quaking\ Grass,\ Cow-quake,\ Didder,\ Dithering-grass,\ Dodder-grass$

Synonyms: 30

Perennial rhizomatous herb with a clump of narrow erect leaves 7–15 mm wide and 30–40 cm tall. Greenish flowers in spring produce purple to tan seeds dangling on thread-like stems. Found in unimproved, species-rich, well-managed grassland on infertile calcareous soils and favoring well-drained slopes. Native to Eurasia.

Netherlands, Sc#1567g. Issued 9 April 2018, in MS/10.

Notothlapsi rosulatum BRASSICACEAE

Common Name: Penwiper

Perennial herb. Pinkish leaves form closely overlapping rosette. Sweet-smelling cream flowers. Grows on scree slopes. Endemic to South Island of New Zealand.

New Zealand, Sc#2840. Issued 13 February 2019, in Set/6 Native Alpine Flora. Designed by Stephen Fuller. Printed by lithography on Tullis Russelel 104 gsm red phosphor gummed stamp paper by Southern Colour Print, Dunedin, New Zealand. Printed in panes of 25 and MS/6.

Craspedia incana ASTERACEAE

Common Name: Woolyheads

Perennial herb 20–30 cm. Leaves and scapes densely covered in soft white floccose tomentum. Leaves $5-10\times2-3$ cm form a rosette. Yellow flowers appear on scape 10-30 cm long in summer. Grow on limestone scree. Endemic to New Zealand.

New Zealand, Sc#2842. Issued 13 February 2019, in Set/6 Native Alpine Flora.



Myosotis bryonoma BORAGINACEAE

Common Name: Moss-dwelling Forget-me-nots

First described in 2018. Minute herb. Rosette leaves fleshy, bearing hairs on the leaf underside orientated parallel to midrib. Flowers 1–3 per inflorescence, less than 50 mm long, subtended by a cauline leaf. White or yellow flowers, 1.3–6.6 mm diameter, in November–April. Fruit appear February–April. High elevation bogs and wet places in mountain ranges of Otago, New Zealand.

New Zealand, Sc#2844. Issued 13 February 2019, in Set/6 Native Alpine Flora.

Begonia oxysperma BEGONIACEAE

Perennial, trailing, scandent herb. Found in primary forests, on trees or cliffs, 400–1900 m on Luzon.

Philippines, Sc#3742a. Issued 16 October 2017, in set of Endemic Flowers of the Philippines. Designed by Aimee Cabingo. Printed as SS/4 + 2 labels in Litho Offset by Amstar Printing Company, Inc. Print run of 5,000.

Coelogyne candoonensis ORCHIDACEAE

Medium sized, cool growing epiphyte. Pseudobulbs carry two narrowly elliptic to lanceolate, petiolate base leaves. Blooms in late spring and early summer on a terminal, erect then arching, rachis to 30 cm long. Flowers are 3 cm. Found on Mindanao Island of the Philippines at elevations around 1500 m.

Philippines, Sc#3742b. Issued 16 October 2017, on a SS with labels as part of the Endemic Flowers of the Philippines.









Plocoglottis lucbanensis ORCHIDACEAE

Terrestrial herb with purple pseudobulbs covered by persistent fibers. Lanceolate leaves. Blooms in fall and early winter on a stem 50 cm with few flowers. Found on Philippine islands around 1000 m.

Philippines, Sc#3742d. Issued 16 October 2017, on a SS with labels as part of the Endemic Flowers of the Philippines.

Pseuderanthemum carruthersii (=reticulatum) ACANTHACEAE

Common names: Pasaw (Tagalog), Yellow-vein Eranthemum

Synonyms: 14 synonyms

Erect, multi-branched and evergreen perennial shrub to 12 m. Simple, entire and ovate leaves, 7.6–12.7 cm. Produces small white flat-faced flowers, five-lobed with two fused together, and dotted with magenta-purple spots. Flowers in branched clusters on an upright spike at the branch tips. Native to forests of Polynesia and Melanesia.

Philippines, Sc#3776. Issued 23 April 2018, for Flowers Definitives – Series 1. Print run of 500,000 by Litho Offset in sheets of 100 by Amstar Printing Company, Inc., Quezon City.

Laeliocattleya 'Gold Digger' ORCHIDACEAE

Registered in 1974 as a hybrid between two hybrid parents, Ctt. Red Gold × Catt. Warpaint. Epiphytic perennial herb.

St. Thomas & Prince Islands, Sc#3252b. Issued 13 March 2017, in a MS/4.



Dendrobium victoriae-reginae ORCHIDACEAE

Synonyms: *D. victoriae-reginae* f. *album*, *D. victoriae-reginae* var. *miyakei*

Large epiphyte. Pendulous branching nodally swollen stems. Blooms all year on short erect racemes. Flower color is

variable. Flowers are 2.5 cm. Grows in dense, mossy forests with oaks, rhododendrons, azaleas, and myrtles, at altitudes of 1300–2650 m. Endemic to the Philippines. Found on the islands of Camiguin, Luzon, Mindanao, Mindoro, and Negros.

St. Thomas & Prince Islands, Sc#3252d. Issued 13 March 2017, in MS/4.



Zingiber singapurense ZINGIBERACEAE

New species described in 2014. Rhizomatous, perennial herb to 0.8 m. Leaf blades are narrowly ovate, measuring 15–22 cm long and 2–3 cm wide. Inflorescences are about 23 cm long, with showy orange-red to white bracts. Flower is cream-white to pale yellow, and measures about 6–7 cm. Appear in May–June. Grows in shady moist areas in primary and mature secondary forest.

Singapore, Sc#1900. Issued 24 July 2018, in a Set/4 Native Ginger plants. Designed by Ivory Seah from paintings by Waiwai Hole. Printed in offset lithography by Secura Singapore Pte Ltd. on unwatermarked paper.



Cheilocostus globosus COSTACEAE

Common Names: Crepe Ginger, Malay Ginger

Synonym: 8 synonyms

Rhizomatous unbranched perennial herb to 1–1.5 m. Basal flowers on leafless shoot are light yellow to bright red. Distribution restricted to S.E. Asia, Malaysia, and New Guinea.

Singapore, Sc#1901. Issued 24 July 2018, as Native Ginger Plants.









Phrynium hirtum MARANTACEAE

Synonyms: Phrynium inflatum

Rhizomatous terrestrial herb to 1.2-1.3 m. About six leaves per shoot, oblong to elliptic $33-55 \times 12-16$ cm. Inflorescence terminal on leafy shoot atop a 60-70 cm stem with single leaf. White flowers, 2.5 cm long, subtended by bracts. Grow in primary forests from peninsular Malaysia to Sumatra and Borneo.

Singapore, Sc#1902. Issued 24 July 2018, as Native Ginger Plants.



Conamomum xanthophlebium ZINGIBERACEAE

Synonyms: C. citrinum, C. sericeum, C. utriculosum

Rhizomatous perennial herb to 5 m. Leaves oblong-lanceolate up to 80×120 cm. Florescence is an ellipsoidal spike $12-24 \times 8-9$ cm. Bracts deep red. Flowers 2-3.5 cm, crimson. Grows in lowland forests to 1300 m.

Singapore, Sc#1903. Issued 24 July 2018, as Native Ginger Plants.



Euphorbia paralias EUPHORBIACEAE

Common Name: Sea Spurge

Synonyms: Eusia parapias, Euphorbia malacitana, Euphorbion paralium, Galarheous paalias, Tithymalus maritimus, T. paralias

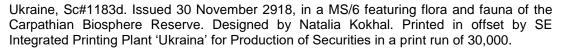
Glaucous perennial to 70 cm. Leaves pale green with prominent midrib, fleshy. Flowers in umbel-like clusters, pale green, from June to October. Grows on coastal sands and dunes. Native to Europe, northern Africa, and western Asia.

Switzerland, Sc#1703c. Issued 15 November 2018, in a MS/4 Medicinal Plants. Inspired by the book of herbs by Italian doctor and botanist Pietro Andrea Mattioli (1501–1577) they were designed by Fanny Hartmann of Berne. Printed in four colors by offset at Joh. Enschedé, Haarlem, Netherlands.

Rhododendron myrtifolium ERICACEAE

Synonym: R. kotschyi

Compact creeping shrub to 0.6 m. Shiny, dark green elliptic to oblanceolate leaves, 2.5 cm. Rose or purple-pink flowers, 1.2–2 cm, in clusters of 3–7, bloom April–May. Native to the Carpathian and Balkan mountains of Bulgaria, Slovenia, Romania, and southwest Russia, at 1500–2400 m.







Iris hippolyti IRIDACEAE

Synonym: Juno hippolyti

Perennial bulbous herb. Leaves crescent-shaped, 1–1.5 cm wide, smooth. Stem to 10 cm with closely packed leaves. Flower pale violet, yellow signal, white crest. Blooms in April. Found in southwestern desert of Uzbekistan.

Uzbekistan, Sc#872c. Issued 24 January 2019 in a MS/4 flowers.



MAMMALIA

Editor

Michael Prince, LM68

New Listings



Scott#	Denom	Common Name/Scientific Name	Family/Subfamily	Co	de		
BHUTA	N	2019 February 1 (Mammals) (MS/4 & SS/	1)				
1602a	20nu	Golden Langur, Trachypithecus geei	Cercopithecidae		A		
1602b	20nu	Himalayan Marmot, Marmota himalayana	Sciuridae	(new)	A		
1602c	20nu	Indian Rhinoceros, Rhinoceros unicornis	Rhinocerotidae		A		
1602d	20nu	Himalayan Goral, Naemorhedus goral	Bovidae		A		
	Margin	LL: various mammal silhouettes		S	Z		
1603	SS 40nu	Red Panda, Ailurus fulgens	Ailuridae		A		
	Margin	LL: various mammal silhouettes		S	Z		
BOTSW	VANA	2018 November 22 (Big Game Animals) (S	Set/5 & SS/5)				
1062	5p	White Rhinoceros, Ceratotherium simum	Rhinocerotidae		A		
1063	7p	Lion, Panthera leo	Felidae		A		
1064	8p	Leopard, Panthera pardus	Felidae		A		
1065	9p	African Bush Elephant, Loxodonta africana	Elephantidae		A		
1066	10p	African Buffalo, Syncerus caffer	Bovidae		A		
1066a		SS/5 (Sc#1062–66)					
ECUAD	OR	2018 September 13 (Green Tourism) (Bklt	/8) (s/a)				
2221a	25c	Galapagos Sea Lion, Zalophus wollebaeki	Otariidae		A		
2221g	\$1	Pygmy Marmoset, Cebuella pygmaea	Cebidae		A		
FINLA	FINLAND 2018 January 24 (Aurora & Reindeer) (Horiz Pair + etiquettes) (s/a)						
1561b	(€1.50)	Reindeer (Caribou), Rangifer tarandus	Cervidae		A		
		2018 February 28 (WWF) (Vert Strip/3) (s	s/a)				
1562a	(€1.40)	Arctic Fox, Vulpes lagopus	Canidae		A		
		2018 September 12 (Finnish National Flora	a & Fauna) (Horiz S	trip/5)			
1571c	(€1.50)	Brown Bear, Ursus arctos	Ursidae	•	A		
GERMA	ANY	2019 January 2 (Porpoise) (Bklt/10) (s/a)					
3075		Harbor Porpoise, <i>Phocoena phocoena</i>	Phocoenidae		A		
3075a		Bklt/10 (Sc#3075)					
			1				
3078	000	2019 January 2 (Juvenile Raccoons) (Sing	·		Α		
		Northern Raccoon, Procyon lotor	Procyonidae		A		
SOUTH	KOREA	2018 June 25 (Nature in the Demilitarized 2	Zone) (Pair)				
2523b	330w	Chinese Water Deer, Hydropotes inermis	Cervidae		A		
		2018 July 10 (Protected Wildlife) (Block/4))				
2524a	330w	Indo-Pacific Bottlenose Dolphin, Tursiops aduncus	Delphinidae		A		
2524b	330w	Narrow-ridged Finless Porpoise, Neophocaena asiaeorientalis	Phocoenidae	(new)	A		
2524c	330w	Spotted Seal, Phoca largha	Phocoenidae		A		
2524d	330w	Northern Fur Seal, Callorhinus ursinus	Otariidae		A		

MALD	IVE ISLAI	NDS 2016 July 20 (Bears) (MS/4 & SS/1)		
3687a	20r	Asiatic Black Bear, Ursus thibetanus	Ursidae	A
3687b	20r	Sun Bear, Helarctos malayanus	Ursidae	A
3687c	20r	Sloth Bear, Melursus ursinus	Ursidae	A
3687d	20r	Polar Bear, Ursus maritimus	Ursidae	A
3697	SS 60r	Spectacled Bear, Tremarctos ornatus	Ursidae	A
	Margin	ML: Grizzly Bear, Ursus arctos ssp. horribilis	Ursidae	Z
		Bot: Syrian Brown Bear, Ursus arctos ssp. syriacus	Ursidae	Z
		MR: American Black Bear, Ursus americanus	Ursidae	Z
		2016 July 20 (Endangered Species) (MS/4	4 & SS/1)	
3691b	20r	Giant Panda, Ailuropoda melanoleuca	Ursidae	A
3691c	20r	Malayan Tapir, Tapirus indicus	Tapiridae	A
3691d	20r	0 , 0	Hominidae	A
3701	SS 60r	Fish Species on stamp		
	Margin	ML: Galapagos Sea Lion, Zalophus wollebaeki	Otariidae	Z
		2016 July 20 (Pandas) (MS/4 & SS/1)		
3692a		Giant Panda, Ailuropoda melanoleuca (sitting w/ bamboo)	Ursidae	Α
3692b	22r	Same species (leaning on paw)	Ursidae	Α
3692c	22r	Same species (walking)	Ursidae	A
3692d	22r	1 '	Ursidae	A
3702	SS 70r	Giant Panda, Ailuropoda melanoleuca	Ursidae	A
	On border	L & R: Same species	Ursidae	Z
		2016 July 20 (Wolves) (MS/4 & SS/1)		
3693a	22r	Newfoundland Wolf, Canis lupus ssp. beothucus	Canidae	A
3693b		Red Wolf, Canis rufus	Canidae	A
3693c		Iberian Wolf, Canis lupus ssp. signatus	Canidae	A
3693d		Alaskan Tundra Wolf, Canis lupus ssp. tundrarum	Canidae	A
3703		Newfoundland Wolf, Canis lupus ssp. beothucus	Canidae	A
	Margin		Canidae	Z
	_	Bot: Grey Wolf, Canis lupus	Canidae	Z
		MR: Mexican Wolf, Canis lupus ssp. baileyi	Canidae	Z
		2016 July 20 (Rare Animals) (MS/4 & SS	/1)	
3696a	22r	Greater Bamboo Lemur, Prolemur simus	Lemuridae	A
3696b	22r	Black and Rufous Sengi, Rhynchocyon petersi	Macroscelididae	A
3696c	22r	Tonkin Snub-nosed Monkey, Rhinopithecus avunculus	Cercopithecidae	A
3696d	22r	Northern Hairy-nosed Wombat, Lasiorhinus krefftii	Vombatidae	A
3706	SS 70r	Snow Leopard, Panthera uncia	Felidae	A
	Margin	ML: Roloway Monkey, Cercopithecus roloway	Cercopithecidae	Z
		Bot: Puma, Puma concolor	Felidae	Z
		2016 November 17 (Dolphins) (MS/4 & S	SS/1)	
3772a	20r	Spinner Dolphin, Stenella longirostris	Delphinidae	A
3772b	20r	Striped Dolphin, Stenella coeruleoalba	Delphinidae	A
3772c	20r	A : A	Delphinidae	A
3772d	20r	Dusky Dolphin, Lagenorhynchus obscurus	Delphinidae	A
3782	SS 60r	Fraser's Dolphin, Lagenodelphis, hosei	Delphinidae	A
	Margin	Top: Common Bottle-nosed Dolphin, Tursiops truncatus	Delphinidae	Z
		ML & MR: Spinner Dolphin, Stenella longirostris	Delphinidae	Z
		Bot: Risso's Dolphin, Grampus griseus	Delphinidae	Z

MALDI	VE ISLAI	NDS (continued) 2016 November 17 (Whales) (MS/4 & SS	S/1)		
3777a	22r	Sperm Whale, Physeter macrocephalus	Physeteridae	A	
3777b	22r	Short-finned Pilot Whale, Globicephala macrorhynchus	Delphinidae	Α	
3777c	22r	Bryde's Whale, Balaenoptera brydei	Balaenopteridae	Α	
3777d	22r	Dwarf Sperm Whale, Kogia simus	Physeteridae	Α	
3787	SS 70r	Blue Whale, Balaenoptera musculus	Balaenopteridae	Α	
	Margin	Bryde's Whale, Balaenoptera brydei	Balaenopteridae	Z	
MONGO		2019 January 4 (New Year 2019: Year or	f the Pig) (Horiz Pair+labe	1)	
2905a	650t	Wild Boar, Sus scrofa (title UL)	Suidae	Α	
2905b	650t	Wild Boar, Sus scrofa (title UR)	Suidae	A	
MOROC	CCO	2018 August 9 (Flora & Fauna) (Horiz Pa	ir)		
1254a	3.75d	Dromedary, Camelus dromedarius	Camelidae	A	
NETHE	RLANDS	2019 January 2 (Mammals) (MS/10)			
1580a	(87c)	Wild Cat, Felis silvestris	Felidae	Α	
1580b	(87c)	Geoffroy's Bat, Myotis emarginatus	Vespertilionidae	Α	
1580c	(87c)	Grey Wolf, Canis lupus	Canidae	Α	
1580d	(87c)	Grey Seal, Halichoerus grypus	Phocidae	A	
1580e	(87c)	Stoat (Ermine), Mustela erminea	Mustelidae	Α	
1580f	(87c)		Mustelidae	Α	
1580g	` ,	European Otter, Lutra lutra	Mustelidae	Α	
1580h		Red Fox, Vulpes vulpes	Canidae	A	
1580i		Eurasian Badger, Meles meles	Mustelidae	A	
1580j		European Rabbit, Oryctolagus cuniculus	Leporidae	A	
1580	Margin	UL: European Rabbit, Oryctolagus cuniculus	Leporidae	Z	
1500	iviai giii	Top: Western Roe Deer, Capreolus capreolus	Cervidae	Z	
		UR: European Hedgehog, Erinaceus europaeus	Erinaceidae	Z	
		LL: Red Squirrel, Sciurus vulgaris	Sciuridae	Z	
N 1977 C			Sciuridae	L	
NEW C A 1249b	ALEDON		Dtamamadidaa	٨	
	11011	Ornate Flying Fox, Pteropus ornatus	Pteropodidae	A	
PALAU		2018 November 30 (Whales) (MS/6 & SS			
1396a		Beluga Whale, Delphinapterus leucas	Monodontidae	Α	
1396b	\$1	Blue Whale, Balaenoptera musculus	Balaenopteridae	Α	
1396c		Humpback Whales, Megaptera novaeangliae	Balaenopteridae	Α	
1396d	\$1.50	Common Minke Whale, Balaenoptera acutorostrata	Balaenopteridae	Α	
1396e	\$1.75	Orca (Killer whale), Orcinus orca	Delphinidae	Α	
1396f	\$2	Sperm Whale, Physeter macrocephalus	Physeteridae	Α	
1397a	SS \$3	Orca (Killer Whale), Orcinus orca	Delphinidae	Α	
1397b	SS \$3	Orca (Killer Whale), Orcinus orca	Delphinidae	A	
2018 December 20 (Dolphins) (MS/4 & SS/1)					
1400a	\$1	Spinner Dolphin, Stenella longirostris	Delphinidae	Α	
1400b	\$2	Pantropical Spotted Dolphin, Stenella attenuata	Delphinidae	A	
1400c	\$3	Atlantic Spotted Dolphin, Stenella frontalis	Delphinidae	A	
1400d	\$4	Striped Dolphin, Stenella coeruleoalba	Delphinidae	Α	
1400	Margin	Top: U/I dolphins	Delphinidae	UΖ	
1401	SS \$4	Common Bottlenose Dolphin, Tursiops truncatus	Delphinidae	A	
		- · · · · · · · · · · · · · · · · · · ·	=		

POLAN	D	2018 December 28 (Adult & Juvenile Ani	mals) (Set/4)		
4386	1.30z	Indian Rhinoceros, Rhinoceros unicornis	Rhinocerotidae	A	
4387	1.30z	Chimpanzee, Pan troglodytes	Hominidae	A	
4388	3z	Linnaeus's Two-toed Sloth, Choloepus didactylus	Megalonychidae	A	
4389	3z	Giraffe, Giraffa camelopardalis	Giraffidae	A	
ROMAN		2019 February 8 (Adult & Juvenile Anima			
6218	31	African Bush Elephant, Loxodonta africana	Elephantidae	A	
6219	51	Koala, Phascolarctos cinereus	Phascolarctidae	A	
6220	71	Snow Leopard, Panthera uncia	Felidae	A	
6221	121	Brown Bear, Ursus arctos	Ursidae	A	
		PRINCE IS. 2017 March 13 (Pandas) (MS/4 & SS/1)	** **		
3242a		Giant Panda, Ailuropoda melanoleuca (adult & juvenile)	Ursidae	A	
3242b		Same species (eating bamboo)	Ursidae	A	
3242c		Red Panda, Ailurus fulgens (facing R)	Ailuridae	A	
3242d		Same species (facing L)	Ailuridae	A	
3261 SS	124000d	, 1	Ursidae	A	
	Margin	R: Giant Panda, Ailuropoda melanoleuca	Ursidae	Z	
		2017 March 13 (Wild Cats) (MS/4 & SS/1)		
3243a	31000d	Lion, Panthera leo	Felidae	A	
3243b	31000d	Puma, Puma concolor	Felidae	A	
3243c	31000d	Snow Leopard, Panthera uncia	Felidae	A	
3243d		Cheetah, Acinonyx jubatus	Felidae	A	
3262 SS	124000d	Tiger, Panthera tigris	Felidae	A	
	Margin	*	Elephantidae	Z	
		LL: Tiger, Panthera tigris	Felidae	Z	
		2017 March 13 (Dolphins) (MS/4 & SS/1)			
3244a	31000d	Fraser's Dolphin, Lagenodelphis hosei	Delphinidae	A	
3244b	31000d	Common Bottlenose Dolphin, Tursiops truncatus	Delphinidae	A	
3244c	31000d	Pygmy Killer Whale, Feresa attenuata	Delphinidae	A	
3244d		Rough-toothed dolphin, Steno bredanensis	Delphinidae	Α	
3263 SS		Risso's Dolphin, Grampus griseus	Delphinidae	Α	
	Margin	UR: Risso's Dolphin, Grampus griseus	Delphinidae	Z	
		LL: Short-beaked Dolphin, Delphinus delphis	Delphinidae	Z	
		2017 March 13 (Extinct Species) (MS/4 &	SS/1)		
3251a	31000d	†Western Black Rhinoceros, Diceros bicornis ssp. longipes	Rhinocerotidae	A	
3251b	31000d	†Javan Tiger, Panthera tigris ssp. sondaica	Felidae	A	
3251c	31000d	†West Indian Monk Seal, Monachus tropicalis	Phocidae	A	
3251d	31000d	†Spanish Ibex, Capra pyrenaica ssp. pyrenaica	Bovidae	A	
3270 SS	124000d	†Thylacine, Thylacinus cynocephalus	Thylacinidae	A	
	Margin	LR: †Thylacine, Thylacinus cynocephalus	Thylacinidae	Z	
2017 March 13 (Mushrooms) (MS/4)					
3253b		Red Squirrel, Sciurus vulgaris (w/ Leccinum sp.)	Sciuridae	В	
3253c	31000d	Red Squirrel, Sciurus vulgaris (w/ Gyromitra sp.)	Sciuridae	В	
SERBIA		2019 April 18 (Protected Animals) (Horiz	Strip/4+label)		
855a	23d	Alpine Long-eared Bat, Plecotus macrobullaris	Vespertilionidae (nev	v) A	
855b	46d	Steppe Polecat, Mustela eversmannii	Mustelidae	A	
855c	50d	Alpine Chamois, Rupicapra rupicapra ssp. balcanica	Bovidae	A	
855d	70d	Brown Bear, Ursus arctos	Ursidae	A	

SOUTH AFRICA 2018 November 26 (Big Game Animals) (Bklt/10) (s/a)				
C125	(8.50r)	Lion, Panthera leo	Felidae	A
C126	(8.50r)	African Bush Elephant, Loxodonta africana	Elephantidae	A
C127	(8.50r)	Leopard, Panthera pardus	Felidae	A
C128	(8.50r)	White Rhinoceros, Ceratotherium simum	Rhinocerotidae	A
C129	(8.50r)	African Buffalo, Syncerus caffer	Bovidae	A
C129a		Bklt/10 (2ea Sc#C125–29)		
S. GEOR	RGIA & S	SANDWICH IS. 2018 October 18 (Migratory Whales) (2ea	Vert Pairs)	
585a	70p	Blue Whale, Balaenoptera musculus	Balaenopteridae	A
585b	80p	Blue Whale, Balaenoptera musculus	Balaenopteridae	A
586a	£1.05	Humpback Whale, Megaptera novaeangliae	Balaenopteridae	A
586b	£1.85	Humpback Whale, Megaptera novaeangliae	Balaenopteridae	A
SPAIN		2019 February 5 (Children's Art) (Set/2)		
4339	70c	Eurasian Badger, Meles meles (by Claudia Torred Martinez)	Mustelidae	A
SRI LAN	IKA	2018 May 24 (Fauna) (Set/3 & SS/3)		
2142	12r	Grizzled Giant Squirrel, Ratufa macroura	Sciuridae	A
2143a		SS/3 (Sc#2141–43)		
SURINA	M	2018 December 29 (Flora & Fauna) (12ea	SS)	
1547	SS \$5	Red Slender Loris, Loris tardigradus	Lorisidae	A
1550		Wedge-capped Capuchin, Cebus olivaceus	Cebidae	A
SWAZIL	AND	2017 August 21 (Big Game Animals) (Set/	5)	
825		Lion, Panthera leo	Felidae	A
826		African Bush Elephant, Loxodonta africana	Elephantidae	A
827	(4e)		Bovidae	Α
828		Leopard, Panthera pardus	Felidae	Α
829		Black Rhinoceros, Diceros bicornis	Rhinocerotidae	A
SWEDE	N	2018 August 23 (Mammals) (Set/3) (s/a)		
2825		Bank Vole, Clethrionomys glareolus	Muridae	A
2826		Eurasian Pine Marten, Martes martes	Mustelidae	Α
2827		Brown Bear, Ursus arctos	Ursidae	A
TAJIKIS	STAN	2018 April 20 (Sughd Region Buildings) (I	MS/4)	
493		LL: Red Deer (Elk), Cervus elaphus	Cervidae	Z
	6	LR: Northern White-breasted Hedgehog, Erinaceus roumanicus		Z
		2018 April 20 (Gorno Badakhstan Tourist .	Attractions) (MS/4)	
494	Margin		Bovidae	Z
., .	111418111	UR: Snow Leopard, Panthera uncia	Felidae	\overline{Z}
		LL: Red Fox, Vulpes vulpes	Canidae	$\overline{\mathbf{Z}}$
TONGA		2019 February 8 (Animals of the World) (Horiz Pair)	
1339a	2 20na	Domestic Rabbit variety, Oryctolagus cuniculus	Leporidae	A
1339b	•	Fennec Fox, Vulpes zerda	Canidae	A
	•	-		11
TONGA 377a			Petauridae	٨
TRISTA		• ` ' ' '	7:nh::doo	A
1149	_	Shepherd's Beaked Whale, Tasmacetus shepherdi	Ziphiidae	A
1150	70p	Southern Right Whale, Eubalaena australis	Balaenidae	A
1151 1152	£1 £1.50	Fin Whale, Balaenoptera physalus Orce (Killer Whale), Orcinus area	Balaenopteridae	A
1132	£1.30	Orca (Killer Whale), Orcinus orca	Delphinidae	A

	TUNISIA		2018 December 18 (Fauna) (Set/4 & SS/4)			
	1685	900m	Golden Jackal, Canis aureus	Canidae	Α	
	1687	2d	Red Deer (Elk), Cervus elaphus ssp. barbarus	Cervidae	A	
	1687a		SS/4 (Sc#1684–87)			
UKRAINE		,	2018 November 30 (Carpathian Biosphere Flora & Fauna) (MS/6)			
	1183f	7h	Brown Bear, Ursus arctos	Ursidae	A	
	VIETNAM		2018 August 18 (Kon Ka Kinh National Pa	rk Fauna) (Set/ & SS/4)		
	3610	6500d	Annamite Muntjac, Muntiacus truongsonensis	Cervidae (nev	w) A	
	3611a		SS/4 (Sc#3608–11)			

CANADA BEARS

On 24 July 2019, Canada Post issued a set of four Permanent rate (85c) stamps depicting bear species found in that country. The formats include a booklet of eight with two of each stamp, a souvenir sheet of four stamps, and an uncut press sheet of 24 stamps with six of each design.

The stamps were designed by Andrew Perro based on photos by Robert Postma (*Ursus arctos*) and Michelle Valberg (all others). They were printed by Lowe-Martin using four-color lithography.

The cover of the booklet has a different image of the head of a Grizzly Bear. The souvenir sheet shows a full image of a Black Bear in the top margin. The press sheet has a full image of a Kermode bear, which is a rare subspecies of the Black Bear, in the margin.

(Canada Post) Bears are some of the most intelligent and formidable predators in the Canadian wilderness. Their enormous size and raw power make them captivating and worthy of our respect.



Black (*Ursus americanus*), Polar (*Ursus maritimus*), Kermode (*U. a. kermodei*), Grizzly (*Ursus arctos*)

Assessed as being of special concern by the Committee on the Status of Endangered Wildlife in Canada, the powerful Grizzly Bear (*Ursus arctos*) eats a mainly vegetarian diet. Once common on the prairies, grizzlies are now found only in the western and northern regions of Canada.

Two thirds of the world's population of Polar Bears (*Ursus maritimus*) roam Canada's circumpolar region. On average, they are the largest bear species in the world—males can weigh up to 800 kilograms (1,760 lb)—and are superbly adapted to life on the sea ice. Unfortunately, polar bears have also been assessed as a special concern as a result of increased ice loss caused by the warming climate.

The most widely distributed bear species in North America, the American Black Bear (*Ursus americanus*), inhabits every province and territory, except Prince Edward Island (where it once lived). Named after their most common color, black bears can sport coats of blond, brown, blue, and cinnamon—and almost any hue in between. Offspring with white or cream-colored fur can also occur, most commonly in populations on the west coast known as Kermode bears (*Ursus americanus* ssp. *kermodei*). White Kermode bears have long been featured in the traditions of coastal First Nations people.

Valberg recalls the moment she first spotted Warrior, a female Kermode bear named for the scar on her nose. "Warrior walks around like she owns the forest. There's a regal elegance about her stride that's incredible to watch."



ORNITHOLOGY

Editor Glenn G. Mertz, BU1455

JERSEY 17

Corrections/Updates

ANGOLA - Vol. 68(2), p.122

Update: Sc#1486. I only listed one bird shown on this stamp, but two different birds appear on the stamp. Add R: Hairy-breasted Barbet, *Tricholaema hirsute*, Lybiidae, Vol. 68(2).

MALDIVE ISLANDS - Vol. 67(3), p.221

Update: Ancient Egyptian Art, (MS/4). Replace Mi6556 with Sc#3751b.

TOGO

Update: I emailed the New Issues Editor at Scott Publishing about the listing status for Togo, as no numbers have been listed since the year 2011. His reply is as follows: "Togo never responded to our inquiries after we wrote them on more than one occasion. I'm not going to waste my time and company resources trying to contact an organization that can't be bothered to answer."

My response to his answer was, "I would agree with you. I hope that you also informed them that because they will not co-operate, that their stamps will no longer be listed in the Scott Stamp Catalogue." Maybe loss of listings will impact their sales, although this country issues more stamps than a small country like them can ever be used by their people. The stamps for them are produced by Stamperija, and I sometimes believe that some of these countries they print stamps for do not even know what is being issued under that country's name.

Scott#	Denom	New Issues Common Name/Scientific Name	Family/Subfamily	Code
ARUB	\mathbf{A}	2018 November 30 (Sustainable Energy) (Set/5)	C
615	92c	Laughing Gull, Leucophaeus atricilla	Laridae	
616	100c	Brown Pelican, Pelecanus occidentalis	Pelecanidae	
CENT	RAL AFRI	CA 2019 March 21 (Parrots of the World) (MS	S/4 & SS/1)	AZ
a	900fr	Australian King-Parrot, Alisterus scapularis	Psittaculidae	
b	900fr	Sun Parakeet, Aratinga solstitialis	Psittacidae	
c	900fr	Gray Parrot, Psittacus erithacus	Psittacidae	
d	900fr	Western Rosella, Platycercus icterotis	Psittaculidae	
	Margin	Ctr: Red-and-green Macaw, Ara chloropterus	Psittacidae	
N/A	SS 3600fr	Sulphur-crested Cockatoo, Cacatua galerita	Cacatuidae	
	Margin	R: Scarlet Macaw, Ara macao	Psittacidae	
2019 March 21 (Owls of the World) (MS/4 & SS/1)				
a	850fr	Great Gray Owl, Strix nebulosa	Strigidae	
b	850fr	Eurasian Eagle-Owl, Bubo bubo (wings together)	Strigidae	
c	850fr	Same species (wings spread)	Strigidae	
d	850fr	Snowy Owl, Bubo scandiacus	Strigidae	
	Margin	Ctr: Great Horned Owl, Bubo virginianus	Strigidae	
N/A	SS 3300fr	Great Horned Owl, Bubo virginianus	Strigidae	
	Margin	R: Eurasian Eagle-Owl, Bubo bubo	Strigidae	

Alcedinidae

Alcedinidae

Alcedinidae

Alcedinidae

N/A

SS 1000fr Blue-winged Kookaburra, Dacelo leachii

LL: Pied Kingfisher, Ceryle rudis

Margin MR: Buff-breasted Paradise-Kingfisher, Tanysiptera sylvia

LR: Blue-eared Kingfisher, Alcedo meninting

CENT	DAI AFDI	CA (continued) 2019 May 23 (Wild Animals: Hummingbird	46) (MS/1 & SS/1)	ΑZ
a		Mexican Violetear, Colibri thalassinus	Trochilidae	AL
b		Green-crowned Brilliant, Heliodoxa jacula	Trochilidae	
		Long-tailed Sylph, Aglaiocercus kingii	Trochilidae	
c d			Trochilidae	
		Copper-rumped Hummingbird, Amazilia tobaci		
N/A	SS 3300fr	Cuban Emerald, Chlorostilbon ricordii	Trochilidae	
	Margin	L: Green-crowned Brilliant, Heliodoxa jacula	Trochilidae	
		2019 May 23 (Wild Animals: Ducks) (MS/4	-	AZ
a	850fr	Harlequin Duck, Histrionicus histrionicus	Anatidae	
b	850fr	Wood Duck, Aix sponsa	Anatidae	
c	850fr	American Wigeon, Anas americana	Anatidae	
d	850fr	King Eider, Somateria spectabilis	Anatidae	
N/A	SS 3300fr	Mandarin Duck, Aix galericulata	Anatidae	
		L: Mallard, Anas platyrhynchos	Anatidae	
	_	2019 May 23 (Wild Animals: Antarctic Ani	imals) (MS/4)	A
a	900fr	Chinstrap Penguin, <i>Pygoscelis antarcticus</i>	Spheniscidae	
b	900fr		Chionidae	
c	900fr	Imperial Cormorant, <i>Phalacrocorax atriceps</i>	Phalacrocoracidae	
d		Emperor Penguin, Aptenodytes forsteri	Spheniscidae	
			-	
DJIB(2018 December 13 (Stamps-on-Stamps) (Management of the Company o		В
b	240fr	European Roller, Coracias garrulus (Lithuania Sc#877 s-o-s)	Coraciidae	
		2019 February 27 (Bee-eaters) (MS/4 & SS	S/1)	ΑZ
a	240fr	Red-bearded Bee-eater, Nyctyornis amictus	Meropidae	112
b		Blue-throated Bee-eater, Merops viridis	Meropidae	
c	240fr	Green Bee-eater, Merops orientalis	Meropidae	
d		Bot: Southern Carmine Bee-eater, <i>Merops nubicoides</i>	Meropidae	
u		European Bee-eater, Merops apiaster	Meropidae	
N/A	•	•	Meropidae	
1 \ / /A		Chestnut-headed Bee-eater, Merops leschenaultia	Meropidae	
	Margin	LR: Blue-tailed Bee-eater, Merops philippinus	Wieropidae	
		2019 February 27 (Owls) (MS/4 & SS/1)		AZ
a	240fr	Spotted Owlet, Athene brama	Strigidae	
b	240fr	Great Horned Owl, Bubo virginianus	Strigidae	
c	240fr	Northern Saw-whet Owl, Aegolius acadicus	Strigidae	
d	240fr	Snowy Owl, Bubo scandiacus	Strigidae	
	Margin	Bot: Great Gray Owl, Strix nebulosa	Strigidae	
N/A		Little Owl, Athene noctua	Strigidae	
		LR: Barn Owl, Tyto alba	Tytonidae	
	8		•	
TD.		2019 March 14 (Kingfishers) (MS/4 & SS/		ΑZ
		s are in the upper half, and two horizontally se-tenant stamps are	in the lower half of the	e sneet.
The SS	s stamp is a c	circular stamp and three other birds appear in margin.		
a	250fr	Azure Kingfisher, Ceyx azureus (circular) (Cap: Alcedo azurea)	Alcedinidae	
b	250fr	Common Kingfisher, Alcedo atthis (circular)	Alcedinidae	
c	250fr	Black-backed Dwarf-Kingfisher, Ceyx erithaca	Alcedinidae	
d	250fr	Stork-billed Kingfisher, Pelargopsis capensis	Alcedinidae	
NT/A	00.10006	Diversity and Washington Day Indianalis	A 1 4! - ! 4	

2219	OOR SS \$4	2018 August 29 (12th Latin American Bota Ecuadorian Hillstar, <i>Oreotrochilus chimborazo</i> (w/ cactus)	nical Congress) (SS/1) Trochilidae	В
2224b 2224c		2018 December 11 (Scientific Contrib. San Large Ground-Finch, <i>Geospiza magnirostris</i> Blue-throated Hillstar, <i>Oreotrochilus cyanolaemus</i>	Francisco Univ.) (MS/9) Thraupidae Trochilidae	A
FINLA 1 1558		2017 November 3 (Christmas) (Single) Eurasian Bullfinch, <i>Pyrrhula pyrrhula</i> (w/ Santa & squirrels)	Fringillidae	C
1562b	(€1.40)	2018 February 28 (WWF) (Vert Strip/3) (s/Snowy Owl, <i>Bubo scandiacus</i>	/a) Strigidae	A
1571b	(€1.50)	2018 September 12 (National Flora & Faun Whooper Swan, <i>Cygnus cygnus</i>	a) (Horiz Strip/5) (s/a) Anatidae	A
FR. SOU 602		NTARCTIC TERR. 2019 January 2 (Tromelin Island) (Single) White Tern, <i>Gygis alba</i>	Laridae	A
613	€2	2019 January 2 (Shearwater) (SS/1) Flesh-footed Shearwater, <i>Ardenna carneipes</i> (also L margin)	Procellariidae	ΑZ
614a	95c	2019 January 2 (Solar Power Plant) (SS/2) Masked Booby, <i>Sula dactylatra</i>	Sulidae	В
FRENC 1221 1222	CH POLYN 10fr 80fr	Tahiti Petrel, <i>Pseudobulweria rostrata</i> (This stamp was shown in "New Birds in the Philatelic Aviary" Tahiti Monarch, <i>Pomarea nigra</i>	Procellariidae	A
1222	8011	(This is the species that should have been shown in Vol. 68[1].		
GUINE	A			
Note: The of the or	nese four sta ther specie	2019 April 22 (Waxbills) (Set/4, 4ea SS/1, 4 amps are listed as presented on the Neofila website. Each stamp also s in the bottom margin. Each stamp is also featured on a MS/10 s of bird listings.	o exists on a SS/1 with ima	
Note: The of the or	ther specie ig eight sets 12500fr 12500fr 12500fr	amps are listed as presented on the Neofila website. Each stamp also s in the bottom margin. Each stamp is also featured on a MS/10	o exists on a SS/1 with ima	ages
Note: The of the or following N/A N/A N/A	12500fr 12500fr 12500fr 12500fr 12500fr 12500fr 12500fr 12500fr 12500fr	amps are listed as presented on the Neofila website. Each stamp also in the bottom margin. Each stamp is also featured on a MS/10 s of bird listings. Lavender Waxbill, Estrilda caerulescens Zebra Waxbill, Sporaeginthus subflavus Orange-cheeked Waxbill, Estrilda melpoda	o exists on a SS/1 with ima 0. This format applies to Estrildidae Estrildidae Estrildidae Estrildidae	ages
Note: The of the or following N/A	12500fr 12500fr 12500fr 12500fr 12500fr 12500fr 12500fr 12500fr 12500fr	amps are listed as presented on the Neofila website. Each stamp also in the bottom margin. Each stamp is also featured on a MS/16 of bird listings. Lavender Waxbill, Estrilda caerulescens Zebra Waxbill, Sporaeginthus subflavus Orange-cheeked Waxbill, Estrilda melpoda Black-rumped Waxbill, Estrilda troglodytes 2019 April 22 (Barbets) (Set/4, 4ea SS/1, 4ed Yellow-breasted Barbet, Trachyphonus margaritatus Yellow-fronted Tinkerbird, Pogoniulus chrysoconus Vieillot's Barbet, Lybius vieilloti	exists on a SS/1 with ima 0. This format applies to Estrildidae Estrildidae Estrildidae Estrildidae Ea MS/10) Lybiidae Lybiidae Lybiidae Lybiidae	the

GUIN	EA (continue	ed) 2019 April 22 (Sparrows) (Set/4, 4ea SS/1,	4ea MS/10)	A
N/A		Desert Sparrow, Passer simplex	Passeridae	
N/A		House Sparrow, Passer domesticus	Passeridae	
N/A		Eurasian Tree Sparrow, Passer montanus	Passeridae	
N/A	12500fr	Spanish Sparrow, Passer hispaniolensis	Passeridae	
		2019 April 22 (Swallows) (Set/4, 4ea SS/1,	·	\mathbf{A}
N/A		Wire-tailed Swallow, Hirundo smithii	Hirundinidae	
N/A		Barn Swallow, Hirundo rustica	Hirundinidae	
N/A		Red-rumped Swallow, Cecropis daurica	Hirundinidae	
N/A	12500tr	Ethiopian Swallow, Hirundo aethiopica	Hirundinidae	
		2019 April 22 (Swifts) (Set/4, 4ea SS/1, 4ea		\mathbf{A}
N/A	12500fr	White-rumped Swift, Apus caffer	Apodidae	(new)
NT / A	125005	(This species was previously shown on a SWA 4c aerogram.)	A 1' 1	
N/A		Little Swift, Apus affinis	Apodidae	
N/A		Alpine Swift, Apus melba (Cap: Tachymarptis melba)	Apodidae	
N/A	12500fr	Common Swift, Apus apus	Apodidae	
		2019 April 22 (Endangered Species) (Set/4		\mathbf{A}
N/A	12500fr	Beaudouin's Snake-Eagle, Circaetus beaudouini	Accipitridae	
GUIN	EA-BISSAU			\mathbf{A}
a		Northern Goshawk, Accipiter gentilis	Accipitridae	
b		Peregrine Falcon, Falco peregrinus	Falconidae	
c		Ferruginous Hawk, Buteo regalis	Accipitridae	
d		Harris's Hawk, Parabuteo unicinctus	Accipitridae	
e		Eurasian Sparrowhawk, Accipiter nisus	Accipitridae	
a		American Kestrel, Falco sparverius	Falconidae	
b	SS 1650fr	Spanish Eagle, Aquila adalberti	Accipitridae	
		2019 February 19 (Owls) (MS/4 & SS/1)		$\mathbf{A} \mathbf{Z}$
N/A		Snowy Owl, Bubo scandiacus	Strigidae	
N/A		Great Horned Owl, Bubo virginianus	Strigidae	
N/A		Northern White-faced Owl, <i>Ptilopsis leucotis</i>	Strigidae	
N/A		Barn Owl, Tyto alba	Tytonidae	
N/A		Long-eared Owl, Asio otus	Strigidae	
	Margin	UL: Great Gray Owl, Strix nebulosa	Strigidae	
		Ctr: Eurasian Eagle-Owl, <i>Bubo bubo</i>	Strigidae	
ICEL		2019 April 11 (Europa: Birds) (Set/2) (s/a)		\mathbf{A}
1494	(225k)	White-tailed Eagle, Haliaeetus albicilla	Accipitridae	
1495	(285k)	Gyrfalcon, Falco rusticolus	Falconidae	
LATV		2019 February 15 (Beetle) (Single)		C
1015	€1.57	White Wagtail, Motacilla alba (tiny w/ Gnorimus nobilis)	Motacillidae	
LITH	UANIA	2019 April 5 (Europa: Birds) (Set/2)		A
1147	75c	White Stork, Ciconia ciconia (two on tree)	Ciconiidae	
1148	75c	Same species (w/ nest & three chicks)	Ciconiidae	
MAL	AYSIA	2018 June 5 (Sabah Tourist Attractions) (Se	et/2)	В
1762		Bornean Bristlehead, Pityriasis gymnocephala (Mt. Kinabalu)	Pityriasidae	Vol. 67(3)

d

N/A

Sagittariidae

Accipitridae

Accipitridae

Accipitridae

S B MALAYSIA (continued) **2018 August 14** (Blowpipes) (Set/3 & SS/1) Stamp depicts a hunter wearing a camouflage headdress made of a stuffed Rhinoceros Hornbill. The SS shows a hunter with a similar headdress and a camouflage cape made of feathers. Bucerotidae 1777 60c Rhinoceros Hornbill, Buceros rhinoceros 1779 SS \$3 Same species MALDIVE ISLANDS **2016 July 20** (Birds of Prey) (MS/4 & SS/1) AZ20r Common Buzzard, Buteo buteo Accipitridae 3689a 20r Osprey, Pandion haliaetus Pandionidae 3689b 3689c 20r Eurasian Hobby, Falco subbuteo Falconidae 20r Pallid Harrier, Circus macrourus 3689d Accipitridae 3699 SS 60r Eurasian Marsh-Harrier, Circus aeruginosus Accipitridae Margin L: Oriental Honey-Buzzard, Pernis ptilorhynchus (1) Accipitridae Bot: Eurasian Kestrel, Falco tinnunculus (2) Falconidae R: Montagu's Harrier, Circus pygargus (3) Accipitridae 2016 July 20 (Endangered Species) (MS/4) A 3691a 20r Blue-throated Macaw, Ara glaucogularis Psittacidae **2019 April 30** (Owls) (MS/4 & SS1) AZ20r Western Screech-Owl, Megascops kennicottii Strigidae a b 20r Great Horned Owl, Bubo virginianus Strigidae 20r Great Grav Owl. Strix nebulosa Strigidae c 20r Tawny Owl, Strix aluco Strigidae d N/A SS 60r Barn Owl, Tyto alba Tytonidae Margin L: Tawny Owl, Strix aluco Strigidae 2019 April 30 (Lighthouses & Water Birds) (MS/4 & SS1) BZ22r Great Egret, Ardea alba ssp. modesta a Ardeidae 22r Pin-tailed Snipe, Gallinago stenura Scolopacidae b 22r Greater Yellowlegs, Tringa melanoleuca Scolopacidae c d 22r Black-billed Gull, Chroicocephalus bulleri Laridae N/A SS 70r Herring Gull, Larus argentatus Laridae Margin LR: Pin-tailed Snipe, Gallinago stenura Scolopacidae **2019 April 30** (Rare Birds) (MS/4 & SS1) AZ22r Philippine Eagle, Pithecophaga jefferyi Accipitridae a 22r Hooded Vulture, Necrosyrtes monachus Accipitridae b c 22r Shoebill, Balaeniceps rex Balaenicipitidae 22r Spoon-billed Sandpiper, Calidris pygmeus Scolopacidae d Margin Bkgrd: Northern Bald Ibis, Geronticus eremite Threskiornithidae SS 70r Red-headed Vulture, Sarcogyps calvus N/A Accipitridae Margin UL & R: Black-necked Stork, Ephippiorhynchus asiaticus Ciconiidae **2019 April 30** (Birds of Prey) (MS/4 & SS1) AZ20r Osprey, Pandion haliaetus Pandionidae a b 20r Brahminy Kite, Haliastur Indus Accipitridae 20r Snail Kite, Rostrhamus sociabilis Accipitridae c

20r Secretary-bird, Sagittarius serpentarius

Margin UL & R: White-tailed Eagle, Haliaeetus albicilla

Margin UR: Whistling Kite, Haliastur sphenurus

SS 60r White-tailed Kite, Elanus leucurus

MOLD	OVA	2018 August 23 (Poultry) (Set/4)		A
993		Mallard, Anas platyrhynchos	Anatidae	
994	41	Graylag Goose, Anser anser	Anatidae	
995	5.751	Red Junglefowl, Gallus gallus	Phasianidae	
996	15.501	Wild Turkey, Meleagris gallopavo	Phasianidae	
MONT	SERRAT	2018 August 18 (Birds) (MS/4 & SS/1)		\mathbf{A}
1414a	\$4	Rufous-tailed Hummingbird, Amazilia tzacatl	Trochilidae	
1414b	\$5	Glittering-throated Emerald, Amazilia fimbriata	Trochilidae	
1414c	\$6	Cinnamon Hummingbird, Amazilia rutila	Trochilidae	
1414d	\$7	White-necked Jacobin, Florisuga mellivora	Trochilidae	
1415	SS \$11	Montserrat Oriole, Icterus oberi	Icteridae	
MORO	OCCO	2014 June 13 (20th World Sacred Music Fe	estival) (Single)	C
1186	3.50d	Demoiselle Crane, Grus virgo	Gruidae	
		Eurasian Hoopoe, Upupa epops	Upupidae	
		2014 September 25 (Birds & Lakes) (Horiz	z Pair)	В
1190a	3.50d	Ruddy Shelduck, Tadorna ferruginea (at Lake Isli)	Anatidae	
1190b	8.40d	Gray Heron, Ardea cinerea (at Lake Tislite)	Ardeidae	
MOZA	MBIQUE	2019 April 10 (Hornbills) (MS/4 & SS/1)		AZ
a	116m	Blyth's Hornbill, Rhyticeros plicatus	Bucerotidae	
b	116m	Von der Decken's Hornbill, Tockus deckeni	Bucerotidae	
c	116m	White-crested Hornbill, Horizocerus albocristatus	Bucerotidae	
d	116m	· · ·	Bucerotidae	
	Margin	UR: Great Hornbill, Buceros bicornis	Bucerotidae	
	~~ ~~	UL: Southern Ground-Hornbill, Bucorvus leadbeateri	Bucorvidae	
N/A		Southern Yellow-billed Hornbill, <i>Tockus leucomelas</i>	Bucerotidae	
	Margin	R: Knobbed Hornbill, <i>Rhyticeros cassidix</i>	Bucerotidae	
		UL: Rufous Hornbill, Buceros hydrocorax ML: Oriental Pied Hornbill, Anthonoras albinostria	Bucerotidae	
		ML: Oriental Pied-Hornbill, Anthracoceros albirostris	Bucerotidae	
		2019 April 10 (Owls) (MS/4 & SS/1)	~	$\mathbf{A} \mathbf{Z}$
a		Eurasian Eagle-Owl, Bubo bubo	Strigidae	
b		Eastern Screech-Owl, Megascops asio	Strigidae	
C		Eurasian Eagle-Owl, <i>Bubo bubo</i> ssp. <i>sibiricus</i>	Strigidae	
d		Snowy Owl, Bubo scandiacus	Strigidae Strigidae	
0	Margin	UL: Snowy Owl, <i>Bubo scandiacus</i> UR: Eurasian Eagle-Owl, <i>Bubo bubo</i>	Strigidae Strigidae	
a N/A	SS 300m	Tawny Owl, Strix aluco	Strigidae	
14/11		R: Spotted Owl, Strix occidentalis	Strigidae	
	margin	ML: Great Gray Owl, <i>Bubo virginianus</i> ssp. <i>virginianus</i>	Strigidae	
		UL: Pacific Pygmy-Owl, Glaucidium californicum	Strigidae	
		(now a ssp. of Northern Pygmy Owl, Glaucidium gnoma)	8	
		2019 April 10 (Sea Birds) (MS/4 & SS/1)		ΑZ
a	116m	Black Guillemot, Cepphus grylie	Alcidae	112
b		Atlantic Puffin, Fratercula arctica	Alcidae	
c		Common Tern, Sterna hirundo	Laridae	
d		Royal Tern, Thalasseus maximus	Laridae	
		UL: Great Cormorant, Phalacrocorax carbo	Phalacrocoracidae	
		UR: Common Tern, Sterna hirundo	Laridae	
N/A		Waved Albatross, Phoebastria irrorata	Diomedeidae	
	Margin	R: American White Pelican, Pelecanus erythrorhynchos	Pelecanidae	

	MBIQUE (- · · · · · · · · · · · · · · · · · · ·	CZ
N/A		Australian Ibis, <i>Threskiornis molucca</i> ssp. <i>moluccus</i> UL: Great Cormorant, <i>Phalacrocorax carbo</i> ssp. <i>lucidus</i>	Threskiornithidae Phalacrocoracidae
	iviui giii	2019 April 10 (Pigeons) (MS/4 & SS/1)	A Z
a	116m	Eurasian Collared-Dove, Streptopelia decaocto	Columbidae
b		Speckled Pigeon, Columba guinea	Columbidae
c		Crested Pigeon, Ocyphaps lophotes	Columbidae
d	116m	Inca Dove, Columbina inca	Columbidae
u .		·	Columbidae
	111118111	UL: Mourning Dove, Zenaida macroura	Columbidae
N/A	SS 300m	Spotted Dove, Streptopelia chinensis	Columbidae
1 1// 1 1		UL: White-winged Dove, Zenaida asiatica	Columbidae
	Magni	ML: Nicobar Pigeon, Caloenas nicobarica	Columbidae
		Ctr: European Turtle-Dove, <i>Streptopelia turtur</i>	Columbidae
		UR: Helmet Pigeon (domestic fancy breed)	Columbidae
D.	11 77 1	2019 April 10 (Extinct Animals) (SS/1)	A
		ert in 1855. Five other species reside in this family; †G. gigantea,	
		G. xichuanensis. Remains discovered by five different individuals	s all are listed by fragmentary
skeletoi	ns. My resea	arch found no English names assigned to any of the six species.	
N/A	SS 300m	†Gastornis parisiensis	Gastornithidae
		2019 June 10 (Antarctic Animals) (MS/4)	Α
a	116m	Chinstrap Penguin, <i>Pygoscelis antarcticus</i>	Spheniscidae
b		Snow Petrel, <i>Pagodroma nivea</i>	Procellariidae
U	110111		
		2019 June 10 (Parrots) (MS/4 & SS/1)	$\mathbf{A} \mathbf{Z}$
a		Rosy-faced Lovebird, Agapornis roseicollis	Psittaculidae
b		Crimson-fronted Parakeet, <i>Psittacara finschi</i> (Cap: <i>Aratinga f.</i>)	Psittacidae
c	116m	Meyer's Parrot, Poicephalus meyeri	Psittacidae
d	116m	Galah, Eolophus roseicapilla	Cacatuidae
N/A	SS 300m	Gray Parrot, Psittacus erithacus	Psittacidae
	Margin	Top: Rainbow Lorikeet, Trichoglossus moluccanus	Psittaculidae
		2019 June 10 (Bee-eaters) (MS/4 & SS/1)	$\mathbf{A} \mathbf{Z}$
a	116m	European Bee-eater, Merops apiaster	Meropidae
b		Green Bee-eater, Merops orientalis	Meropidae
c	116m	White-fronted Bee-eater, Merops bullockoides	Meropidae
d	116m	Chestnut-fronted Bee-eater, Merops leschenaultia	Meropidae
N/A	SS 300m	Southern Carmine Bee-eater, Merops nubicoides	Meropidae
		Top: Blue-throated Bee-eater, Merops viridis	Meropidae
NIESSI (_		
	CALEDON:		Malinharidaa
1249a	11011	Crow Honeyeater, Gymnomyza aubryana	Meliphagidae
PALAU	U	2018 July 5 (Fruit Dove) (Single)	A
1382	\$2	Palau Fruit-Dove, <i>Ptilinopus pelewensis</i>	Columbidae
		2018 December 10 (Sea Birds) (MS/6 & SS	S/3) A
1398a	25c	Sooty Tern, Onychoprion fuscatus	Laridae
1398b	50c	Black-bellied Plover, <i>Pluvialis squatarola</i>	Charadriidae
1398c	\$1	Bulwer's Petrel, <i>Bulweria bulwerii</i>	Procellariidae
1398d	\$1.50	Whiskered Tern, Chlidonias hybrida	Laridae
1398e	\$2	Pacific Golden-Plover, <i>Pluvialis fulva</i>	Charadriidae
1398f	\$2.50	Common Tern, Sterna hirundo	Laridae
10,01	Ψ2.50		

Note

PALAU	(continued	1)		
1399a	SS \$1	Brown Noddy, Anous stolidus	Laridae	
1399b	SS \$2	Dunlin, Calidris alpine	Scolopacidae	
1399c	SS \$3	Ruddy Turnstone, Arenaria interpres	Scolopacidae	
		2018 December 19 (Nicobar Pigeons) (MS/	/4 & SS/2)	A
1402a	\$1	Nicobar Pigeon, Caloenas nicobarica	Columbidae	
1402b	\$1.50	Same species	Columbidae	
1402c	\$2	Same species	Columbidae	
1402d	\$2.50	Same species	Columbidae	
1403a	SS \$3	Same species	Columbidae	
1403b	SS \$3.50	Same species	Columbidae	
PAPUA	NEW GU	INEA 2017 August 24 (Bird Type of 2017) (Singl	e)	A
1880	13k	Raggiana Bird-of-Paradise, Paradisaea raggiana	Paradisaeidae	
		2017 December 30 (Birds) (Set/2 & SS/2)		A
1914		Indian Peafowl, Pavo cristatus	Phasianidae	
1914A		Raggiana Bird-of-Paradise, Paradisaea raggiana	Paradisaeidae	
1915a	10k	Raggiana Bird-of-Paradise, Paradisaea raggiana	Paradisaeidae	
1915		SS/2 (Sc#1914 & 1915a) (joint issue with India)		
		2018 April 16 (Birdpex 8) (Set/4, MS/3, SS	/2)	A
1924		Red-billed Brush-Turkey, Talegalla cuvieri	Megapodiidae	Vol. 67(3)
1925		Meyer's Goshawk, Accipiter meyerianus	Accipitridae	Vol. 67(3)
1926		Gurney's Eagle, Aquila gurneyi	Accipitridae	Vol. 67(3)
1927		Dusky Scrubfowl, Megapodius freycinet	Megapodiidae	Vol. 67(3)
1928a		Dusky Scrubfowl, Megapodius freycinet	Megapodiidae	
1928b	8k		Megapodiidae	
1928c	10k	.	Megapodiidae	
1929a		Red Goshawk, Erythrotriorchis radiatus (facing left)	Accipitridae	
1929b	SS 8k	Same species (facing right)	Accipitridae	
PARAG		2018 September 21 (Birds of the Chaco) (Macon Chaco)		A
3091a	•	Olive-crowned Crescentchest, Melanopareia maximiliani	Melanopareiidae	
3091b	2500g	,	Furnariidae	(new)
3091c	3000g	Spot-backed Puffbird, Nystalus maculatus	Bucconidae	Vol. 67(4)
3091d	_	Hepatic Tanager, Piranga flava	Cardinalidae	
3091e	4000g	Blue-crowned Trogon, Trogon curucui	Trogonidae	
ROMA		2018 September 14 (Masters of Camouflag		A
	_	as only assigned four numbers to this issue because they only rece		
		es sources. The four listed stamps have all the birds facing right.		
	-	nich is to represent the mirror-image of each. Scott stated that if the	y get the mirror ima	age stamps,
they wil	I list them a	as minor numbers. Each stamp was issued in a $MS/5 + 1$ label.		
6174	21	Eurasian Thick-knee, Burhinus oedicnemus	Burhinidae	
6175	31	Syrian Woodpecker, Dendrocopos syriacus	Picidae	
6176	51	Eurasian Nightjar, Caprimulgus europaeus	Caprimulgidae	
6177	191	Eurasian Green Woodpecker, Picus viridis	Picidae	
Moto		MS/A (So#6174, 77) (issued in limited quantities)		

MS/4 (Sc#6174–77) (issued in limited quantities)

DOMAN	IIA (conti	nuad) 2018 October 5 (Birds) (Set/A)	A	
6184			Accipitridae	
6185	51	White-tailed Eagle, Haliaeetus albicilla	Picidae	
6186		Black Woodpecker, <i>Dryocopus martius</i> Eurasian Eagle-Owl, <i>Bubo bubo</i>	Strigidae	
6187		Dalmatian Pelican, <i>Pelecanus crispus</i>	Pelecanidae	
Note	121	MS/4 (Sc#6184–87) (issued in limited quantities)	refecantiae	
Note				
		2019 January 16 (Romanian Treasures) (•	
6214	31	L: Pygmy Cormorant, Microcarbo pygmaeus	Phalacrocoracidae	
		R: Great White Pelican, Pelecanus onocrotalus	Pelecanidae	
6216	121	Golden Eagle, Aquila chrysaetos	Accipitridae	
6216b		SS/6 (Sc#6211–16)		
RUSSIA		2018 December 4 (New Year 2019) (Sing	le) C	
	the stamp	b looks like a Christmas stamp, Russia issues New Year stamps in		;
		op left corner of the stamp reading Новым годом means "New		
		hristmas, but I leave it to readers to guess.	·	
7978	22n	Eurasian Bullfinch, <i>Pyrrhula pyrrhula</i>	Fringillidae	
1910	22p		Tinginidae	
		2019 January 22 (Crane) (Single)	A	
7996	45p	Siberian Crane, Leucogeranus leucogeranus (w/ chick)	Gruidae	
ST. PIEH	RRE & M	IIQUELON 2019 January 17 (Bird) (Single)	${f A}$	
1070	€1.05	Bay-breasted Warbler, Setophaga castanea	Parulidae	
ST THO	MAS & 1	PRINCE IS. 2016 November 10 (Birds) (Block/6) (s/a)) A	
3197a		Black-collared Hawk, Busarellus nigricollis	Accipitridae	
3197b		Black Hawk-Eagle, Spizaetus ornatus	Accipitridae	
3197c	20000d	•	Falconidae	
3197d		White-tailed Kite, <i>Elanus leucurus</i>	Accipitridae	
3197e		Orange-breasted Falcon, Falco deiroleucus	Falconidae	
3197f		Bateleur, Terathopius ecaudatus	Accipitridae	
		2016 November 10 (China 2016 Stamp E.	-	
3234a	310004	Red-crowned Crane, <i>Grus japonensis</i> (in flight, name LL)	Gruidae	1
3234a 3234b	31000d		Gruidae	
3234c	31000d	1 (& , ,	Gruidae	
3234d		Same species (standing)	Gruidae	
3234 a		Bkgrd: Same species (sheet silhouette)	Gruidae	
3235 SS	_	Red-crowned Crane, Grus japonensis	Gruidae	
0200 22	1200000	• •		
20.45	210001	2017 March 13 (Aquatic Birds) (MS/4 &		1
3245a		Black-necked Stork, Ephippiorhynchus asiaticus	Ciconiidae	
3245b		Brown Pelican, Pelecanus occidentalis	Pelecanidae	
3245c		Great Crested Grebe, <i>Podiceps cristatus</i>	Podicipedidae	
3245d	31000d		Phoenicopteridae Anatidae	
3204 33	124000d		Pelecanidae	
	Margin	R: American White Pelican, <i>Pelecanus erythrorhynchos</i>	Pelecanidae	
		2017 March 13 (Birds of Prey) (MS/4 & S		ı
3246a	31000d	1 0.	Pandionidae	
3246b	31000d		Accipitridae	
3246c	31000d		Cathartidae	
3246d		Merlin, Falco columbarius	Falconidae	
3265 SS	124000d		Accipitridae	
	Margin	R: Same species	Accipitridae	

ST. THO	OMAS & 1	PRINCE IS. (cont) 2017 March 13 (Owls) (MS/4 & SS/1)		AZ
3247a	31000d	Bare-shanked Screech-Owl, Megascops clarkii	Strigidae	
3247b	31000d	Lesser Sooty-Owl, Tyto multipunctata	Tytonidae	
		(lumped w/ Greater Sooty Owl)		
3247c	31000d	Great Horned Owl, Bubo virginianus	Strigidae	
3247d	31000d	Oriental Scops-Owl, Otus sunia	Strigidae	
3266 SS	S 124000d	Spectacled Owl, Pulsatrix perspicillata	Strigidae	
	Margin	UR: Short-eared Owl, Asio flammeus ssp. galapagoensis	Strigidae	
		LR: Short-eared Owl, Asio flammeus	Strigidae	
		2017 March 13 (Lighthouses & Shells) (MS/4)	A
3255a	31000d	Ring-billed Gull, Larus delawarensis	Laridae	
		2019 April 10 (Kingfishers) (MS/4 & SS	/1)	ΑZ
a	31d	African Pygmy-Kingfisher, Ispidina picta	Alcedinidae	
b	31d	White-throated Kingfisher, Halcyon smyrnensis	Alcedinidae	
c	31d	Belted Kingfisher, Megaceryle alcyon	Alcedinidae	
d	31d	Malachite Kingfisher, Corythornis cristatus	Alcedinidae	
N/A	SS 124d	Pied Kingfisher, Ceryle rudis	Alcedinidae	
	Margin	R: Common Kingfisher, Alcedo atthis	Alcedinidae	
		2019 April 10 (Ducks) (MS/4 & SS/1)		A
a	31d	Wood Duck, Aix sponsa	Anatidae	
b	31d	King Eider, Somateria spectabilis	Anatidae	
c	31d	Common Goldeneye, Bucephala clangula	Anatidae	
d		Hooded Merganser, Lophodytes cucullatus	Anatidae	
N/A	SS 124d	Hooded Merganser, Lophodytes cucullatus	Anatidae	
	Margin	R: Wood Duck, Aix sponsa	Anatidae	
ST. VIN	ICENT &	GRENADINES 2019 February 7 (Hummingbirds) (MS/6	5 & SS/1)	A
4167a	\$1	Rufous-breasted Hermit, Glaucis hirsutus	Trochilidae	
4167b	\$2	Antillean Crested Hummingbird, Orthorhyncus cristatus	Trochilidae	
4167c	\$3	Puerto Rican Emerald, Chlorostilbon maugaeus	Trochilidae	
4167d	\$4	Antillean Mango, Anthracothorax dominicus	Trochilidae	
4167e	\$5	Antillean Crested Hummingbird, Orthorhyncus cristatus	Trochilidae	
4167f	\$6	Blue-headed Hummingbird, Cyanophala bicolor	Trochilidae	
4168	SS \$10	Bee Hummingbird, Mellisuga helenae	Trochilidae	

SLOVENIA

On 30 May 2014, Sc#1044 was issued for Common Merganser. According to the May 2019 issue of *Linn's Stamp News*, it was reissued with a perf of 11½, which is a deeper perforation than those found on Sc#1044.

Kjell Sharning's website listed that three of the birds issued on 30 May 2014, were reissued with the new perforations, but no mention of what the new perforation figures were. When I saw this on his website, I inquired with the New Issues Editor for Scott Publishing if he was aware of these new perf issues. His reply, in an email to me on 10 July 2017, was as follows: "We have not received these yet. If we get them we will list them."

When the May 2019 issue listed Sc#1044b, I again emailed the New Issues Editor on 16 May 2019, with the question about the new perforations. His reply was: "Slovenia 1044b was shown to them by a collector. We don't get definitive reprints from all countries. There are probably other stamps in this set, as well as other definitive sets of Slovenia, that have perforations other the ones that were listed originally. They aren't items that I keep a list for because they are almost minor varieties."

I replied with a "Thank You," and he responded with this answer: "The measurement on Sc#1044b differs from Sc#1044, but it is a rather small difference. The information on the depth of the die cutting is helpful in distinguishing the items."

The conclusion to this is whether postal authorities note new differences when reprinting some issues to Scott Publishing or collectors measure them and forward them to Scott Publishing notifying them of the new difference from original printing. Failure of any of these two methods leaves many stamps out there that may have difference perforations than the original stamp when issued.

r		8		
SAN	MARINO	2019 February 26 (Europa: Birds) (Set/2)		\mathbf{A}
2034	€1.10	Peregrine Falcon, Falco peregrinus	Falconidae	
2035	€1.15	Same species (w/ chicks)	Falconidae	
SIER	RA LEONE	2019 March 28 (Tropical Birds) (MS/4 & S	SS/1)	ΑZ
a	12500le	Sun Parakeet, Aratinga solstitialis	Psittacidae	
b	12500le	White-fronted Bee-eater, Merops bullockoides	Meropidae	
c	12500le	Rainbow Lorikeet, Trichoglossus moluccanus	Psittaculidae	
d		Great White Pelican, Pelecanus onocrotalus	Pelecanidae	
N/A	SS 50000le	Great Green Macaw, Ara ambiguus	Psittacidae	
	Margin	R: Blyth's Hornbill, Rhyticeros plicatus	Bucerotidae	
		2019 March 28 (Kingfishers) (MS/4 & SS/	1)	ΑZ
a	12500le	Brown-hooded Kingfisher, Halcyon albiventris	Alcedinidae	
b	12500le	Azure Kingfisher, Ceyx azureus	Alcedinidae	
c	12500le	Common Kingfisher, Alcedo atthis	Alcedinidae	
d	12500le	Black-backed Dwarf-Kingfisher, Ceyx erithaca	Alcedinidae	
N/A	SS 50000le	Giant Kingfisher, Megaceryle maximus	Alcedinidae	
	Margin	R: Ruddy Kingfisher, Halcyon coromanda	Alcedinidae	
		2019 March 28 (Global Warming) (MS/4 of	& SS/1)	A
b	12500le	Adelie Penguin, Pygoscelis adeliae	Spheniscidae	
N/A	SS 50000le	Baird's Sandpiper, Calidris bairdii	Scolopacidae	
		2019 April 25 (Hornbills) (MS/4 & SS/1)		AZ
a	12500le	Rhinoceros Hornbill, Buceros rhinoceros	Bucerotidae	
b	12500le	Great Hornbill, Buceros bicornis	Bucerotidae	
c	12500le	Southern Yellow-billed Hornbill, Tockus leucomelas	Bucerotidae	
d	12500le	Wreathed Hornbill, <i>Rhyticeros undulates</i>	Bucerotidae	
N/A	SS 50000le	Wreathed Hornbill, <i>Rhyticeros undulates</i>	Bucerotidae	
	Margin	R: Knobbed Hornbill, Rhyticeros cassidix	Bucerotidae	
		2019 April 25 (Ducks) (MS/4 & SS/1)		AZ
a	12500le	Common Goldeneye, Bucephala clangula	Anatidae	
b	12500le	Hooded Merganser, Lophodytes cucullatus	Anatidae	
c	12500le	Redhead, Aythya americana	Anatidae	
d	12500le	Lesser Scaup, Aythya affinis	Anatidae	
N/A	SS 50000le	Northern Pintail, Anas acuta	Anatidae	
	Margin	R: Wood Duck, Aix sponsa	Anatidae	

NEW BIRDS IN THE PHILATELIC AVIARY

Charles E. Braun, BU1364

New Birds



†EOALULAVIS, Eoalulavis hoyasi †Enantiornithidae

Mozambique, 2019 February 10, not yet cataloged, 300m SS. Extinct 120 million years ago.

Length: Five inches, sexes alike, resident. Spear-shaped body.

Habitat: Coasts. Range: Spain.

Reference: Sanz, J. L., L. M. Chappe, B.P. Perez-Moreno, A. D. Buscalioni,

J. J. Moratalla, F. Ortega, and F.J. Povato-Ariza. *Nature* 282 (1996).

†GASTORNIS, Gastornis parisiensis †Gastornithidae

Mozambique, 2019 April 10, not yet cataloged, 300m SS. Extinct 50 million years ago.

Length: 100 inches, sexes alike, resident. A large flightless bird.

Habitat: Woodlands.

Range: Britain to Germany.

Reference; Mlikovsky, J. Cenozoic Birds of the World, Part 1: Europe (2002).





TAHITI PETREL Pseudobulweria rostrata

Procellariidae

French Polynesia, 2019 January 25, Sc#1221, 10fr

Length: 15 to 16 inches, sexes alike, marine. Black above and white below with a black head and neck and pale central wings.

Habitat: Breeds on volcanic islands, otherwise avoids land.

Range: Bismarcks to Marquesas.

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

of the World, Volume 1.

BARE-SHANKED SCREECH-OWL, Megascops clarkii Strigidae

St. Thomas & Prince Is., 2017 March 13, Sc#3247a, 31000d

Length: Six to eight inches, sexes alike, resident. Rufous-brown above and spotted buffy-brown below with a cinnamon face.

Habitat: Highland forest and forest edge.

Range: Costa Rica to northwestern Colombia.

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

the World, Volume 5.



WHITE-RUMPED SWIFT, *Apus caffer* Apodidae Guinea, 2019 April 22, not yet cataloged, 12500fr

Length: Six inches, sexes alike, migratory. Black with a white rump and throat patch. Habitat: Savannah, scrub, and forest.

Range: Breeds in southern Spain, southern Portugal, central Morocco, and Africa south of the Sahara. Winters from Senegal to northern South Africa.

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. *Handbook of the Birds of the World, Volume 5*.





GIANT HUMMINGBIRD, Patagona gigas Trochilidae

Ecuador, 2019, not yet cataloged, 75c

Length: Eight to nine inches, resident. The male (shown) is dull olive brown above and dull cinnamon below with a white rump and undertail. The female is spotted dusky below.

Habitat: Open areas in highlands.

Range: Southwestern Colombia to central Argentina.

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

World, Volume 5.

TANZANIAN RED-BILLED HORNBILL, Tockus ruahae Bucerotidae

Niger, 2019 April 24, not yet cataloged, 800fr

Length: 14 inches, sexes alike, resident. Black above and white below with a red bill,

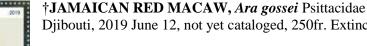
grayish throat, and yellow or orange eyes. Habitat: Open savanna and woodland,

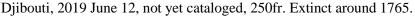
Range: Central Tanzania

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

World, Volume 6.







Length: 35 inches, sexes alike, resident. Red with a yellow crown, nape and tail tip and

blue wings. Habitat: Forest. Range: Jamaica.

Reference: Day, D. Vanished Species.



RUFOUS CACHALOTE, Pseudoseisura unirufa Furnariidae

Paraguay, 2018 September 21, Sc#3091b, 2500g

Length: Eight inches, sexes alike, resident. Reddish-rufous, paler below with a

gray bill.

Habitat: Gallery forest.

Range: Eastern Bolivia, southwestern Brazil, and northern Paraguay,

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the Birds of the World, Volume 8.





SOUTHERN BEARDLESS-TYRANNULET, Camptostoma obsoletum Tyrannidae Ecuador, 2019, not yet cataloged. 75c

Length: Four inches, sexes alike, resident. Olive-gray above and pale yellow below with two white wing-bars and gray legs.

Habitat: Scrub and forest edges.

Range: Cuba, and Costa Rica to northern Argentina.

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the Birds of the World, Volume 9.



WHITE-EYED SLATY-FLYCATCHER, Melaeornis fischeri ssp. fischeri Muscicapidae

Malawi, 2018 June 4, not yet cataloged, 700k

Length: Six inches, resident. The male (shown) is dark bluish-gray above and pale bluish-gray below with a broad whitish-gray eyering. The female lacks the eyering.

Habitat: Forest and woodlands.

Range: The nominate race (shown) ranges from southeastern Sudan to

northern Tanzania.

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

WHITE-BROWED LAUGHINGTHRUSH, *Pterorhinus sannio* Leiothrichidae Antigua and Barbuda, 2004 February 16, Sc#2722a, \$2.50

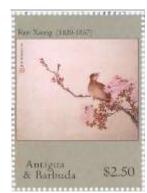
Length: Nine inches, sexes alike, resident. Dull mid-brown above and cinnamon-buff below with a dark brown crown, white face, black eyestripe, and warm brown chin to breast.

Habitat: Grassy and scrubby areas and bamboo.

Range: Northeastern India to China and Vietnam.

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

World, Volume 12.





GREAT THRUSH, Turdus fuscater Turdidae

Ecuador, 2019, not yet cataloged, 25c

Length: 11 to 13 inches, sexes alike, resident. Dark gray-brown, paler below with a yellow-orange bill.

Habitat: Open areas.

Range: Western Venezuela to western Bolivia.

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

World, Volume 10.



VAN HASSELT'S SUNBIRD, *Leptocoma brasiliana* Nectariniidae Maldive Islands, 2019 June 1, not yet cataloged, 22r

Length: Four inches, resident. The male (shown) is black above and maroon-crimson below with a green crown and sooty-brown belly. The female is dull olive-green above and greenish-yellow below. Habitat: Forest.

Range: Northeastern India to Borneo and western Java.

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the Birds of the World, Volume 13.



PALESTINE SUNBIRD, *Cinnyris osea* Nectariniidae Maldive Islands, 2019 June 1, not yet cataloged, 22r

Length: Three to four inches, resident. The male (shown) is metallic bluegreen above and violet below with a black chin. The female is greenish above and off-white below,

Habitat: Savanna, orchards, and gardens,

Range: Lebanon to Oman; Sudan to eastern Cameroon and northwestern Uganda;

Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the Birds of the World, Volume 13.

STREAKED SPIDERHUNTER, Arachnothera magna Nectariniidae

Niger. 2019 June 26, not yet cataloged, 800fr

Length: Seven to 14 inches, sexes alike but the female is much smaller, resident. Black-streaked golden yellowish-olive above and black-streaked yellowish-white below with a long curved bill.

Habitat: Forest and surrounding areas.

Range: Nepal to Vietnam and the Malay Peninsula.

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

World, Volume 13.

RUSTY FLOWERPIERCER, Diglossa sittoides Thraupidae

Ecuador, 2019, not yet cataloged, \$1

Length: Four inches, resident. The male (shown) is plumbeous gray above and pale cinnamon below. The female is medium olive-gray above and faintly streaked grayish-olive below.

Habitat: Shrubby areas and forest canopy.

Range: Western Venezuela to northwestern Argentina.

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

World, Volume 16.







BLACK-AND-WHITE SEEDEATER, *Sporophila luctuosa* Thraupidae Ecuador, 2019, not yet cataloged, 25c

Length: Four inches, resident. The male (shown) is black with a white belly and wing patch. The female is warm buffy brown above and warm buff below.

Habitat: Grassland and shrubs.

Range: Western Venezuela to Bolivia.

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

World, Volume 16.



Guyana, 2018 November 20, Sc#4588a, \$500 SS

Length: Five inches, sexes similar, resident. Green, paler below with spots on the

head, neck, and breast. Habitat: Humid forest.

Range: Southern Venezuela to northern Brazil and Peru to Bolivia.

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

World, Volume 16.





CHESTNUT-AND-BLACK WEAVER, *Ploceus castaneofuscus* Ploceidae Sierra Leone, 2018, not yet cataloged, 500le (Cap: *Ploceus nigerrimus*)

Length: Seven inches, resident. The male (shown) is black with a chestnut back and belly. The female is streaked dull greenish above and buff below.

Habitat: Open areas.

Range: Gambia to southern Nigeria.

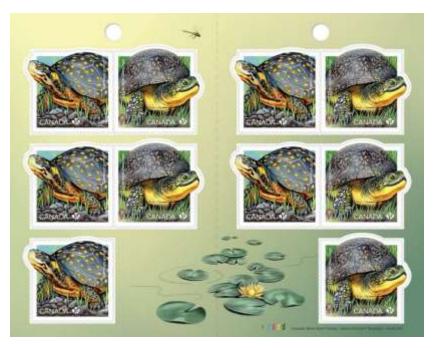
Reference: del Hoyo, J., A. Elliott, and J. Sargatal, Eds. Handbook of the Birds of the

World, Volume 16.

ENDANGERED TURTLES

On 23 May 2019, World Turtle Day, Canada Post released stamps featuring two species of endangered turtles. The Blanding's Turtle (*Emydoidea blandingii*) is found in central-southwest Nova Scotia and in the Great Lakes/St. Lawrence region of southern Ontario southwestern Quebec. Although the Spotted Turtle (Clemmys guttata) now inhabits only isolated pockets of central and southern Ontario, it was likely once distributed more widely.

Like all eight of Canada's freshwater turtle species, these species play a vital role in the wetland ecosystems they inhabit as predators of insects and other invertebrates and as scavengers that consume dead plants and animals. These turtles have been assessed as endangered by the Committee on the Status of Endangered Wildlife in Canada.



Did you know?

- The Blanding's Turtle has a mouth that curves slightly upward, making it appear as if it is always smiling.
- Blanding's Turtles hibernate from fall until early spring, partially burying themselves in the mud or sand at the bottom of shallow bodies of water that become ice covered.
- They are one of the longest-lived freshwater turtles, able to survive and reproduce well into their 80s.
- The Spotted Turtle is one of Ontario's smallest turtle species, with a shell less than 13 cm in length.
- Spotted Turtles are the first of Ontario's turtle species to emerge from hibernation in early spring, thanks to their tolerance for cold.
- Slow to mature, they may be capable of living for more than 100 years.

Blanding's and Spotted turtles both reproduce slowly, so every individual lost has a severe impact on the overall population. For this reason, the mortality of turtles on roadways poses a significant threat to both species. Other threats include habitat loss and fragmentation, invasive plants affecting their habitats, and illegal collection. Thanks to conservation efforts, however, there is still hope for their recovery.

These stunning stamps, designed by Adrian Horvath and illustrated by Sarah Still, are available in booklets of 10. The Official First Day Cover is cancelled in Maitland Bridge, Nova Scotia, near the province's Blanding's turtle population.



MARINE INVERTEBRATES

Editor

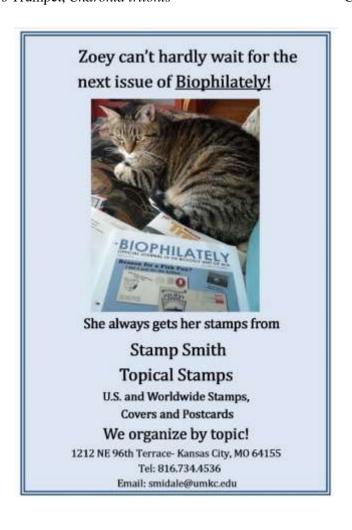
Ian Hunter, BU1619



New Listings	
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Scott#	Denom	Common Name/Scientific Name	Family/Subfamily	Code
		NTARCTIC TERR. 2019 January 2 (Fish) (Single)		***
606	€1.70	U/I Starfish (w/ fish)		U B
		2019 January 2 (Shells of Adele Land) (S		
615a		Iridescent Antarctic Snail, Falsimargarita gemma	Calliostomatidae	A
615b 615c	SS 95c	a Murex Shell, <i>Trophonella scotiana</i> a Murex Shell, <i>Trophonella shackletoni</i>	Muricidae Muricidae	A A
		•		А
MONA (2967		2019 March 15 (Mediterranean Science Could U/I Starfish	ommission) (Single)	ИΒ
PHILIP		2018 February 10 (Centenary Municipalit	y of Mabini) (Horiz Pair	
3767b	•	U/I Coral Reef (underwater scene)		U A
		D PRINCE IS. 2017 March 13 (Shells & Lighthouses) (March 13 (Shells & Lighthouses))		
3255b		Flowery Lace Murex, Chicoreus florifer	Muricidae	В
3255c 3274 S		Regal Murex, <i>Hexaplex regius</i> LL: Precious Wentletrap, <i>Epitonium scalare</i>	Muricidae Epitoniidae	B Z
3214 8	os margin	Bot & Ctr: Venus Comb Murex, Murex pecten	Muricidae	Z
		LR: Red Helmet Shell, Cypraecassis rufa	Cassidae	Z
		MR: Atlantic Thorny Oyster, Spondylus americanus	Spondylidae	Z
SLOVA	KIA	2019 March 22 (Timekeeping Devices) (H	Ioriz Pair) (Ioint Issue)	
813b	€1.20	Stylized Crab (Zodiac) (on astronomical clock, Stara Bystrica, Slovakia)		S C
SLOVE	NIA	2019 March 22 (Timekeeping Devices) (H	Ioriz Pair) (Joint Issue)	
1326b	€1.17	Stylized Crab (Zodiac) (on astronomical clock, Stara Bystrica,	Slovakia)	S C
SPAIN		2019 January 28 (Almería: 2019 Gastrono	omic Capital) (Single)	
4337	(70c)	Stylized Shrimp (w/ vegetables) (inscr. "A2")	•	S B
SURINA	AM	2018 May 16 (Marine Life of the Mariana	Trench) (Set/7)	
1533	\$9.50	a Hydrozoan, Benthocodon hyalinus	Rhopalonematidae	A
1537	\$20	Ping-pong Tree Sponge, Chondrocladia lampadiglobus	Cladorhizidae	A
1538	\$34	Deep-sea Octopus, Grimpoteuthis abyssicola	Opisthoteuthidae	A
		2019 March 13 (Marine Life of the Marian	na Trench) (Block/8)	
1560a	(\$1.50)	Dumbo Octopus, Grimpoteuthis sp. (inscr. "C")	Opisthoteuthidae	U A
1560c	\$10	Arctic Comb Jelly, Mertensia ovum	Mertensiidae	A
1560e	\$15	Marine Isopod, <i>Munnopsis</i> sp.	Munnopsidae	U A
1560h	\$30	Glowing Sucker Octopus, Stauroteuthis syrtensis	Stauroteuthidae	A
TONGA	1	2018 March 15 (Easter) (MS/4)		
1334c	2.25pa	Stylized Shells (w/ flowers & eggs)		S C
TONGA	\ (Niuafo'o	ou) 2018 March 15 (Easter)		
370b	2.25pa	Stylized Shells (w/ butterflies & eggs)		S C

TONG	A (Niuafo'o	2018 September 7 (Shells) (2ea SS/2	2)	
374a	SS 5pa	Giant Spider Conch, Lambis truncata	Strombidae	A
374b	SS 5pa	Textile Cone, Conus textile \$	Conidae	A
375a	SS 5pa	Venus Comb Murex, Murex pecten	Muricidae	A
375b	SS 5pa	Emperor Nautilus, Nautilus pompilius	Nautilidae	A
TURKISH CYPRUS 2018 December 13 (Outdoor Activities) (Set/2)				
824	2.501	Coral Reef (w/ scuba diver & kayaker)		UC
TUVA	LU	2018 December 5 (Nudibranchs) (M	(S/6 & SS/1)	
1432a	50c	Variable Neon Slug, Nembrotha kubaryana	Polyceridae	A
1432b	\$1	Mediterranean Violet Aeolid, Flabellina affinis	Flabellinidae	A
1432c	\$1.50	Spanish Shawl, Flabellinopsis iodinea	Flabellinidae	A
1432d	\$2	Magnificent Sea Slug, Chromodoris magnifica	Chromodorididae	A
1432e	\$2.50	Willan's Chromodoris, Chromodoris willani	Chromodorididae	A
1432f	\$3	Hilton's Aeolid, Phidiana hiltoni	Facelinidae	A
1433	SS \$5	Crested Aeolis, Janolus cristatus	Proctonotidae	A
VIETN	NAM	2018 June 23 (Marine Life) (Set/4, I	3klt/8, SS/1)	
3598	3000d	Chambered Nautilus, Nautilus pompilius	Nautilidae	A
3599	3000d	Commercial Top Shell, Trochus niloticus	Trochidae	A
3600	3000d	Maxima Clam, Tridacna maxima	Cardiidae	A
3601	10500d	Jester Cowrie, Mauritia scurra	Cypraeidae	A
3601a		Bklt/8 (2ea Sc#3598–3601)		
3602	SS 12000d	Triton's Trumpet, Charonia tritonis	Charoniidae	A





ICHTHYOLOGY

Editor

J. Dale Shively, BU1832

New Listings



Scott#	Denom	Common Name/Scientific Name	Family/Subfamily	Code	
ARMEN	IIA	2018 December 19 (Flora & Fauna) (Set/2))		
1167	330d	(no common name), Capoeta capoeta ssp. sevangi	Cyprinidae	A	
		2019 March 26 (Calouste Sarkis Gulbenkia	an [1869–1955]) (Hor	riz Pair)	
1183b	330d	Stylized fish (design on ceramic bowl) (joint issue: see Portugal	Sc#4110)	S C	
CHINA	(Taiwan)	2019 January 24 (Goldfish Variants) (Set/	4)		
4455	\$6	Red Swallowtail, Carassius auratus	Cyprinidae	A	
4456	\$6	Ryukin, Carassius auratus	Cyprinidae	A	
4457	\$12	Dragon Eye, Carassius auratus	Cyprinidae	A	
4458	\$28	Goose Head Pearl Scale, Carassius auratus	Cyprinidae	A	
	2019 February 21 (Dongsha Atoll National Park) (Set/4)				
4459	\$8	Red-breasted Wrasse, Cheilinus fasciatus	Labridae	В	
4460	\$13	Yellowhead Demoiselle, Pomacentrus aurifrons	Pomacentridae	В	
		Bkgrd: U/I reef fish		UC	
4461	\$15	Spotted Eagle Ray, Aetobatus narinari	Myliobatidae	В	
		Bkgrd: U/I marine fish		UC	
CROAT	IA	2019 May 15 (Marine Life) (MS/4) (s/a)			
Note: Th	e illustrati	on used in the Scott listing is of a marine life sheet issued in 2015	<i>5</i> .		
C6d	8.60k	Mediterranean Moray, Muraena helena	Muraenidae	A	
FAROE	ISLANDS	S 2019 February 25 (1539 Nautical Map De	tails) (Set/3 & SS/3)		
723	11k	Stylized fish (on map)		S B	
724	17k	Stylized fish (on map)		S B	
725	27k	Stylized fish (on map)		S B	
725a		SS/3 (Sc#723–25)			
	Margin	Stylized fish (on map)		SBZ	
FRANC	E	2019 February 22 (Saltwater Fish) (Bklt/1	2)		
5606	88c	Atlantic Bluefin Tuna, Thunnus thynnus	Scombridae	A	
5607	88c	Red Scorpionfish, Scorpaena scrofa	Scorpaenidae	A	
5608	88c		Moronidae	A	
5609		John Dory, Zeus faber	Zeidae	A	
5610		Gilthead Seabream, Sparus aurata	Sparidae	A	
5611	88c	Turbot, Scophthalmus maximus	Scophthalmidae	A	
5612		Common Sole, Solea solea	Soleidae	A	
5613		Atlantic Mackerel, Scomber scombrus	Scombridae	A	
5614	88c		Serranidae	A	
5615	88c	1	Clupeidae	A	
5616	88c	Thornback Ray, Raja clavata	Rajidae	A	
5617	88c	·	Gadidae	A	
5617a		Bklt/12 (Sc#5606–17)			

S_C

S_C

В

Salmonidae

Gadidae

4110

7972

1059

RUSSIA

ST. PIERRE & MIOUELON

FRENCH POLYNESIA 2019 May 24 (Marine Life in Protected Reserve) (Single) Note: Stamp is a composite painting of many fish species. Lack of detail prevents identification of most species. 1227 100fr Top: Flying Fish sp. Exocoetidae U B UL: Crevalle Jack, Caranx hippos В Carangidae UL: Rainbow Parrotfish, Scarus flavipectoralis (?) Scaridae UBCtr: Grouper, *Epinephelus* sp. (?) Serranidae U B UR: Big Eye, Priacanthus sp. Priacanthidae U B LL: Snapper sp. Lutjanidae UBLL: Pennant Coralfish, Heniochus acuminatus Chaetodontidae В LL: Two-band Anemonefish, Amphiprion bicinctus Pomacentridae В Pomacentridae В LL: (Partial) Two-band Anemonefish. Amphiprion bicinctus LR: Butterflyfish sp. Chaetodontidae UBLR: Emperor Angelfish, Pomacanthus imperator Pomacanthidae В FR. SOUTH. & ANTARCTIC TERR. 2019 January 2 (Tern & Tromelin Island) (Single) 95c U/I fish (in beak of White Tern) U C 602 2019 January 2 (Fish) (Single) 606 €1.70 Antarctic Horsefish, Zanclorhynchus spinifer Congiopodidae Α **GREENLAND 2019 January 21** (Fish) (Set/2 & SS/2) (perf 12½) 2k Blue Whiting, *Micromesistius poutassou* (perf 12½) 805 Gadidae A 2k Same species (perf 12½×13) Gadidae 805a Α 30k American Plaice, *Hippoglossoides platessoides* (perf 12½) Pleuronectidae 806 Α 806a 30k Same species (perf 12½×13) Pleuronectidae A SS/2 (Sc#805a & 806a) 806b **GUYANA 2018 December 18** (Monster Fish) (MS/6 & SS/1) \$150 Red-bellied Piranha, Pygocentrus nattereri Serrasalmidae 4593a A 4593b \$200 Ripsaw Catfish, Oxydoras niger Doradidae A \$250 Redtail Catfish, *Phractocephalus hemioliopterus* Pimelodidae 4593c A 4593d \$300 Tiger Sorubim, Pseudoplatystoma tigrinum Pimelodidae A 4593e \$350 Redeye Piranha, Serrasalmus rhombeus Serrasalmidae A \$400 Tambaqui (Cachama), Colossoma macropomum Serrasalmidae 4593f Α Margin Bkgrd: U/I Catfish (partial) 4593 UZ4594 SS \$800 Arapaima, Arapaima gigas Arapaimidae A Z Margin Top: Arapaima, Arapaima gigas (partial) Arapaimidae 2018 May 26 (Centenary Maruzzella Canned Tuna) (Single) **ITALY** 3512 95c Canned Tuna (w/ factory workers) U B **MONACO 2019 March 15** (Atlantic Bluefin Tuna) (Single) 2968 €2 Atlantic Bluefin Tuna, Thunnus thynnus Scombridae A **PORTUGAL 2017 September 8** (Cascais, 2018 European Youth Capital) (Set/4) 3961 63c Stylized fish in basket (Mural: "Avarina" by Add Fuel) S_C **2019 March 23** (Calouste Sarkis Gulbenkian [1869–1955]) (Set/2)

91c Stylized fish (design on ceramic bowl) (joint issue: see Armenia Sc#1183b)

70r Stylized fish (Taimen, *Hucho taimen*)(?)

€2 Cod, Gadus morhua

2018 November 22 (Khabarovsk Coat of Arms) (Single)

2018 April 6 (20th anniv. French Patrol Ship *Fulmar*) (SS/1)

ST. VINCENT		2015 December 31 (Sharks) (MS/6, MS/4,	2ea SS/1)	
4041a	\$3.15	Blacktip Reef Shark, Carcharhinus melanopterus	Carcharhinidae	A
4041b	\$3.15	(Smooth) Hammerhead Shark, Sphyrna zygaena	Sphyrnidae	A
4041c	\$3.15	Whale Shark, Rhincodon typus	Rhincodontidae	A
4041d	\$3.15	Caribbean Reef Shark, Carcharhinus perezii	Carcharhinidae	Α
4041e	\$3.15	Lemon Shark, Negaprion brevirostris	Carcharhinidae	A
4041f	\$3.15	Nurse Shark, Ginglymostoma cirratum	Ginglymostomatidae	Α
4041	Margin	Ctr: Nurse Shark, Ginglymostoma cirratum	Ginglymostomatidae	Z
4042a	\$3.25	Tiger Shark, Galeocerdo cuvier	Carcharhinidae	Α
4042b	\$3.25	Great White Shark, Carcharodon carcharias	Lamnidae	Α
4042c	\$3.25	Bull Shark, Carcharhinus leucas	Carcharhinidae	Α
4042d	\$3.25	Oceanic Whitetip Shark, Carcharhinus longimanus	Carcharhinidae	Α
4042	Margin	Ctr: Great White Shark, Carcharodon carcharias	Lamnidae	Z
4043		Zebra Shark, Stegostoma fasciatum	Stegostomatidae	Α
4044	SS \$10	Pelagic Thresher Shark, Alopias pelagicus	Alopiidae	Α
		2018 October 26 (Tropical Eels) (MS/4 &	SS/1)	
4157a	\$5	Spotted Moray, Gymnothorax moringa	Muraenidae	Α
4157b	\$5	Goldspotted Eel, Myrichthys ocellatus	Ophichthidae	Α
4157c	\$5	Sharptail Eel, Myrichthys breviceps	Ophichthidae	Α
4157d	\$5	Giant Moray Eel, Gymnothorax javanicus	Muraenidae	Α
4157	Margin	LL: U/I reef fish (partial)	Chaetodontidae	UZ
4158	\$10	Green Moray Eel, Gymnothorax funebris	Muraenidae	A
		Bluestreak Cleaner Wrasse, Labroides dimidiatus	Labridae	C
	Margin	LR: U/I Lionfish sp.	Scorpaenidae	UΖ
SIERRA	LEONE	2018 January 30 (Fish) (MS/4 & SS/1)		
4623a	9800le	Redtail Catfish, Phractocephalus hemioliopterus	Pimelodidae	Α
4623b	9800le	Fresh Water Puffer Fish, Tetraodon mbu	Tetraodontidae	Α
4623c	9800le	Elegant Firefish, Nemateleotris decora	Microdesmidae	Α
4623d	9800le	Longnose Hawkfish, Oxycirrhites typus	Cirrhitidae	Α
4643 SS	40000le	French Angelfish, Pomacanthus paru	Pomacentridae	Α
	Margin	LR: French Angelfish, Pomacanthus paru	Pomacentridae	Z
		2018 February 27 (Stamps-on-Stamps) (M	(S/4)	
4671c	9800le	U/I fish (partly exposed on s-o-s)		UC
		2018 February 27 (Whales) (SS/1)		
4686 S	S Margin	Bot: U/I reef fish		UZ
		Bot: Powderblue Surgeonfish, Acanthurus leucosternon	Acanthuridae	Z
		LL: Dusky Batfish, <i>Platax pinnatus</i>	Ephippidae	Z
		2018 March 30 (Dugongs) (MS/4 & SS/1)		
4716a	9800le	Remora, <i>Remora</i> sp.	Echeneidae	UВ
4716b	9800le	Golden Trevally (3 juveniles), Gnathanodon speciosus	Carangidae	В
4716c	9800le	Golden Trevally (2 juveniles), Gnathanodon speciosus	Carangidae	В
		R: Golden Trevally (juveniles), Gnathanodon speciosus	Carangidae	Z
SINGAP	ORE	2018 August 3 (Evening in Singapore) (Set	t/6 & SS/1)	
1906	60c	Stylized fish (people fishing)		S C
1910	SS \$2	Stylized fish (angler fishing)		SC
		•	D (I :	~ ~
SLOVAI		2019 March 22 (Timekeeping Devices) (H		0.0
813b	€1.20	Stylized Fish (Zodiac) (on astronomical clock, Stara Bystrica, S	iovakia)	S C

SLOVE	NIA	2019 March 22 (Timekeeping Devices) (He	, ,	
1326b	€1.17	Stylized Fish (Zodiac) (on astronomical clock, Stara Bystrica, Sl	lovakia)	SC
SURINA	M	2018 May 16 (Marine Life of the Mariana 7	Trench) (Set/7)	
1532	(50c)	Half-naked Hatchetfish, Argyropelecus hemigymnus (inscr. "A")) Sternoptychidae	A
1534	\$10	Fanfin Angler, Caulophryne jordani	Caulophrynidae	A
1535	\$11	Viperfish, Chauliodus sp.	Stomiidae	U A
1536	\$15	Frilled Shark, Chlamydoselachus anguineus	Chlamydoselachidae	A
		2019 March 13 (Marine Life of the Marian	a Trench) (Block/8)	
1560b	\$7.50	(no common name), Himantolophus paucifilosus	Himantolophidae	A
1560d	\$14	Goblin Shark, Mitsukurina owstoni	Mitsukurinidae	A
1560f	\$22	Barrel-eye, Opisthoproctus soleatus	Opisthoproctidae	A
1560g	\$25	Blacksnout Seasnail, Paraliparis copei ssp. copei	Liparidae	A
SWEDE	EN	2018 May 3 (Fish) (Coil & Bklt/5 + 5 etique	ettes)	
2819		Three-spined Stickleback, Gasterosteus aculeatus	Gasterosteidae	A
2820a	21k	Cuckoo Wrasse, Labrus mixtus	Labridae	A
2820b	21k	Lumpfish, Cyclopterus lumpus	Cyclopteridae	A
2820c	21k	Two-spotted Goby, Gobiusculus flavescens	Gobiidae	A
2820d	21k	Rock Gunnel, Pholis gunnellus	Pholidae	Α
2820e	21k	Shorthorn Sculpin, Myoxocephalus scorpius	Cottidae	A
2820		Bklt/5+5 etiquettes (Sc#2820a–e)		
TOKEL	AU	2019 May 1 (Tradition of Sharing Foods) (S	Set/4 & SS/4)	
503	\$2	Skipjack Tuna, Katsuwonus pelamis	Scombridae	A
504a		SS/4 (Sc#501–04)		
TUNISI	\mathbf{A}	2018 July 15 (60th International Festival of	Sousse) (Single)	
TUNISI 1672		2018 July 15 (60th International Festival of Stylized seahorses	Sousse) (Single) Syngnathidae	SB
		· · · · · · · · · · · · · · · · · · ·		S B
		Stylized seahorses 2018 December 18 (Fauna) (Set/4 & SS/4)		S B U A
1672	900m	Stylized seahorses 2018 December 18 (Fauna) (Set/4 & SS/4)	Syngnathidae	
1672 1684	900m 500m	Stylized seahorses 2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87)	Syngnathidae Belonidae	
1672 1684 1687a	900m 500m	Stylized seahorses 2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?)	Syngnathidae Belonidae IS/4 & SS/1)	
1672 1684 1687a TUVAL	900m 500m U	Stylized seahorses 2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Market Stylia (Mar	Syngnathidae Belonidae	UA
1672 1684 1687a TUVAL 1430a	900m 500m U \$1	Stylized seahorses 2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Management of the seahors) Tawny Nurse Shark, Nebrius ferrugineus (head)	Syngnathidae Belonidae IS/4 & SS/1) Ginglymostomatidae	U A
1672 1684 1687a TUVAL 1430a 1430b	900m 500m U \$1 \$2 \$3	Stylized seahorses 2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Management of the seahors) Tawny Nurse Shark, Nebrius ferrugineus (head) Same species	Syngnathidae Belonidae IS/4 & SS/1) Ginglymostomatidae Ginglymostomatidae	U A A A
1672 1684 1687a TUVAL 1430a 1430b 1430c	900m 500m U \$1 \$2 \$3 \$4	Stylized seahorses 2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Management of Start of	Syngnathidae Belonidae IS/4 & SS/1) Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae	U A A A A
1672 1684 1687a TUVAL 1430a 1430b 1430c 1430d	900m 500m U \$1 \$2 \$3 \$4	Stylized seahorses 2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Management of the search of the	Syngnathidae Belonidae IS/4 & SS/1) Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae	U A A A A
1672 1684 1687a TUVAL 1430a 1430b 1430c 1430d	900m 500m U \$1 \$2 \$3 \$4	Stylized seahorses 2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Management of the search of the	Syngnathidae Belonidae IS/4 & SS/1) Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae	U A A A A Z
1672 1684 1687a TUVAL 1430a 1430b 1430c 1430d	900m 500m U \$1 \$2 \$3 \$4	Stylized seahorses 2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Management of the search of the	Belonidae IS/4 & SS/1) Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae	U A A A A Z U Z
1672 1684 1687a TUVAL 1430a 1430b 1430c 1430d 1430	900m 500m U \$1 \$2 \$3 \$4 Margin	Stylized seahorses 2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Management of Stark) (Management of Stark) Tawny Nurse Shark, Nebrius ferrugineus (head) Same species Same species Same species Bkgrd: Same species Bkgrd: U/I reef fish MR: Golden Trevally, Gnathanodon speciosus Tawny Nurse Shark, Nebrius ferrugineus Remora, Remora sp.	Syngnathidae Belonidae IS/4 & SS/1) Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Carangidae Ginglymostomatidae Echeneidae	U A A A A Z U Z C Z A B
1672 1684 1687a TUVAL 1430a 1430b 1430c 1430d 1430	900m 500m U \$1 \$2 \$3 \$4 Margin	Stylized seahorses 2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Management of Shark) (Management of Shark, Nebrius ferrugineus (head) Same species Same species Same species Bkgrd: Same species Bkgrd: U/I reef fish MR: Golden Trevally, Gnathanodon speciosus Tawny Nurse Shark, Nebrius ferrugineus	Belonidae IS/4 & SS/1) Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae	U A A A A Z U Z C Z A B Z
1672 1684 1687a TUVAL 1430a 1430b 1430c 1430d 1430	900m 500m U \$1 \$2 \$3 \$4 Margin SS \$5	Stylized seahorses 2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Management of Stark) (Management of Stark) Tawny Nurse Shark, Nebrius ferrugineus (head) Same species Same species Same species Bkgrd: Same species Bkgrd: U/I reef fish MR: Golden Trevally, Gnathanodon speciosus Tawny Nurse Shark, Nebrius ferrugineus Remora, Remora sp.	Syngnathidae Belonidae IS/4 & SS/1) Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Carangidae Ginglymostomatidae Echeneidae	U A A A A Z U Z C Z A B
1672 1684 1687a TUVAL 1430a 1430b 1430c 1430d 1430	900m 500m U \$1 \$2 \$3 \$4 Margin SS \$5 Margin	2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Management of Start of S	Syngnathidae Belonidae IS/4 & SS/1) Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Carangidae Ginglymostomatidae Echeneidae Ginglymostomatidae	U A A A A Z U Z C Z A B Z
1672 1684 1687a TUVAL 1430a 1430b 1430c 1430d 1430	900m 500m U \$1 \$2 \$3 \$4 Margin SS \$5 Margin	2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Management of Starts) Tawny Nurse Shark, Nebrius ferrugineus (head) Same species Same species Same species Bkgrd: Same species Bkgrd: U/I reef fish MR: Golden Trevally, Gnathanodon speciosus Tawny Nurse Shark, Nebrius ferrugineus Remora, Remora sp. UL: Tawny Nurse Shark, Nebrius ferrugineus UL: U/I reef fish	Syngnathidae Belonidae IS/4 & SS/1) Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Carangidae Ginglymostomatidae Echeneidae Ginglymostomatidae	U A A A A Z U Z C Z A B Z
1672 1684 1687a TUVAL 1430a 1430b 1430c 1430d 1431	900m 500m U \$1 \$2 \$3 \$4 Margin SS \$5 Margin D NATION	2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Management of Tawny Nurse Shark, Nebrius ferrugineus (head) Same species Same species Same species Bkgrd: Same species Bkgrd: U/I reef fish MR: Golden Trevally, Gnathanodon speciosus Tawny Nurse Shark, Nebrius ferrugineus Remora, Remora sp. UL: Tawny Nurse Shark, Nebrius ferrugineus UL: U/I reef fish NS (Geneva) 2019 April 26 (Endangered Species Type 2	Syngnathidae Belonidae IS/4 & SS/1) Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Carangidae Ginglymostomatidae Echeneidae Ginglymostomatidae Echeneidae Ginglymostomatidae	U A A A A Z U Z C Z A B Z U Z
1672 1684 1687a TUVAL 1430a 1430b 1430c 1430d 1431 UNITEI 663 666	900m 500m U \$1 \$2 \$3 \$4 Margin SS \$5 Margin D NATION 1.50fr 1.50fr	2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Management of Shark) (Belonidae IS/4 & SS/1) Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Carangidae Ginglymostomatidae Echeneidae Ginglymostomatidae Echeneidae Ginglymostomatidae Lamnidae O19) (Block/4) Syngnathidae Lamnidae	U A A A A Z U Z C Z A B Z U Z
1672 1684 1687a TUVAL 1430a 1430b 1430c 1430d 1430 1431 UNITEI 663 666 UNITEI	900m 500m U \$1 \$2 \$3 \$4 Margin SS \$5 Margin D NATION 1.50fr 1.50fr	2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Management of Shark) (Belonidae IS/4 & SS/1) Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Carangidae Ginglymostomatidae Echeneidae Ginglymostomatidae Echeneidae Ginglymostomatidae Lamnidae Lamnidae O19) (Block/4)	U A A A A Z U Z C Z A B Z U Z
1672 1684 1687a TUVAL 1430a 1430b 1430c 1430d 1431 UNITEI 663 666	900m 500m U \$1 \$2 \$3 \$4 Margin SS \$5 Margin D NATION 1.50fr 1.50fr 1.50fr 90c	2018 December 18 (Fauna) (Set/4 & SS/4) Orphie (Garfish), Belone belone (?) SS/4 (Sc#1684–87) 2018 December 5 (Tawny Nurse Shark) (Management of Shark) (Belonidae IS/4 & SS/1) Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Ginglymostomatidae Carangidae Ginglymostomatidae Echeneidae Ginglymostomatidae Echeneidae Ginglymostomatidae Lamnidae O19) (Block/4) Syngnathidae Lamnidae	U A A A A Z U Z C Z A B Z U Z

VIET NAM 2018 June 23 (Invertebrate Marine Life) (Set/4 & Bklt/8)				
3598	3000d	U/I Butterflyfish (w/ nautilus)	Chaetodontidae	UC
3599	3000d	UL: U/I Goby (w/ top shell)	Gobiidae	UC
		UR: U/I Butterflyfish	Chaetodontidae	UC
3600	3000d	U/I Butterflyfish (w/ clam)	Chaetodontidae	UC
3601	10500d	U/I Butterflyfish	Chaetodontidae	U C
3601a		Bklt/8 (2ea Sc#3598–3601)		
3602	SS Margin	UL: (no common name), Callanthius japonicas (?)	Callanthiidae	UΖ
WALL	IS & FUTU	JNA ISLANDS 2017 September 22 (Rays) (MS/4)		
790a	5fr	Blue-spotted Stingray, Dasyatis (=Neotrygon) kuhlii	Dasyatidae	A
790b	10fr	Round Ribbontail Ray, Taeniura meyeni	Dasyatidae	A
790c	30fr	Spotted Eagle Ray, Aetobatus narinari	Myliobatidae	A
790d	115fr	Reef Manta Ray, Mobula alfredi (underside)	Myliobatidae	A
790	Margin	LL: Stylized Manta Ray, Mobula alfredi	Myliobatidae	SZ
		Ctr: Manta Ray, Mobula alfredi	Myliobatidae	Z
		UR: Spotted Eagle Ray, Aetobatus narinari	Myliobatidae	Z
		LR: False Moorish Idol (Pennant Fish), Heniochus diphreutes	Chaetodontidae	Z
		LL/LR: Emperor Angelfish, Pomacanthus imperator	Pomacanthidae	Z
		2017 November 9 (Global Warming) (Hor	riz Strip/4)	
792b	115fr	U/I reef fish (w/ Vanuatu map)	_	UC
792d	115fr	U/I pelagic fish (w/ Fiji map)		UC
		2018 November 8 (Mangrove Conservatio	n) (Horiz Strip/4)	
805b	115fr	Snapper, Lutjanus sp. (?)	Lutjanidae	U B

ANTARCTIC HORSEFISH

On 2 January 2019, the French Southern and Antarctic Territories released a stamp featuring an Antarctic Horsefish (*Zanclorhynchus spinifer*). FSAT is a French overseas territory consisting of Adélie Land in coastal Antarctica and several islands in the southern Indian Ocean: Crozet Islands, Kerguelen Islands, Amsterdam Island, and Île Saint-Paul. They are also known for some attractive penguin stamps.

Frankly, this stamp is not in the same league as the penguin stamps not only because of its less-than-attractive subject, but also because the printing is not nearly as well done.



Its distribution includes the FSAT islands in the Southern Ocean where it occurs at depths from 5 to 1000 meters. It feeds mainly on benthic invertebrates, primarily amphipods. It is a member of the family Congiopodidae and may be the first member of this family to be depicted on a stamp.

Due to its deep water nature, not much is known about the species. It is of minor importance to the commercial fishing industry and its conservation has been assessed as "Least Concern."

BIOLOGY UNIT HISTORY & JOURNAL INDEX

We recently received an email from one of our new members, Koenraad Bracke from Belgium. He has taken advantage of his membership to acquaint himself with our study unit by checking out the back issues of *Biophilately* on our website (*www.biophilately.org*) and reading about the history of the organization included in *The Mother of All Indexes*, which we published in 2013. Here is what he had to say:

"I have now been able to read the magazines on the website. Interesting - this chapter what X does in his free time. I will look if I can make this for my animals, too (owls, woodpeckers, spiders, ...).

"Is a membership listing (with collecting interests) included in one of the magazines? Or is this sent separately to members?

"I would like to contact Jean Stout regarding her cockroach exhibit on the website. I would also like to see the collecting interests of the other members.

"In the Unit History of 2013, I read the following:

The ATA celebrated its 50th anniversary during the NTSS at its birthplace in Milwaukee, Wisconsin, 30 July through 1 August 1999. The Unit held its annual meeting on Saturday, 31 July at the Sheraton Four Points Hotel with 20 members and guests including international members from Canada and Germany and a guest from Belgium.

"The guest from Belgium—that was me. I also showed my "owls" exhibit there, next to the one of Frederick S. Ziemann who showed his "owls" for the last time and who won the Biology Unit Award. At that time as an exhibitor you could not get much explanation of the Jury—no points were given, only medals. We both received a gold medal, but no-one could explain why the one was better as the other. Fortunately, it seems that this has changed now in the US—they give points now, so now you can compare where you score better. Maybe after all these years I will participate again at one of the next ATA shows."

Best wishes, Koenraad

Koenraad has raised some points that should be of interest to many other Unit members. First of all, he inquired about a membership directory. The last such directory that we published was in 2013. There is more than one reason that we have not released a subsequent directory.

First of all, we have given our members the option to have their contact information and collecting interests made available in such a directory, or not. Because several members opted to be excluded from the directory, the officers decided that a directory would be of limited usefulness if it lacked a significant number of members.

Another more recent reason involves privacy concerns described on page 171. The Unit Board of Directors will be dealing with this issue and will be preparing a policy letter for release in the near future.

Second, Koenraad mentions an incident described in out Unit history published along with a comprehensive index of the first 62 volumes of the Unit journal. Every Unit member should be very proud of the activities and contributions that the members of the Biology Unit have made throughout its history. This publication not only describes these activities, but also provides statistical data and other consolidated information about the Unit and its members. I highly recommend that each member take some time to review this history and I am sure you will be just as impressed as I am with what a great organization we have.

When we published the index, we sent a copy to everyone who was a member at the time. If you have not received a copy, or have misplaced the one you got, you can download a copy of *The Mother of All Indexes* from the Home page on our website.

Last, we would like to invite Koenraad (and every other Unit member) to enter an exhibit at the NTSS (or whatever the new name will be) next year in Hartford, Connecticut. We need to show the APS and ADFCS what interesting and fun exhibits really look like.

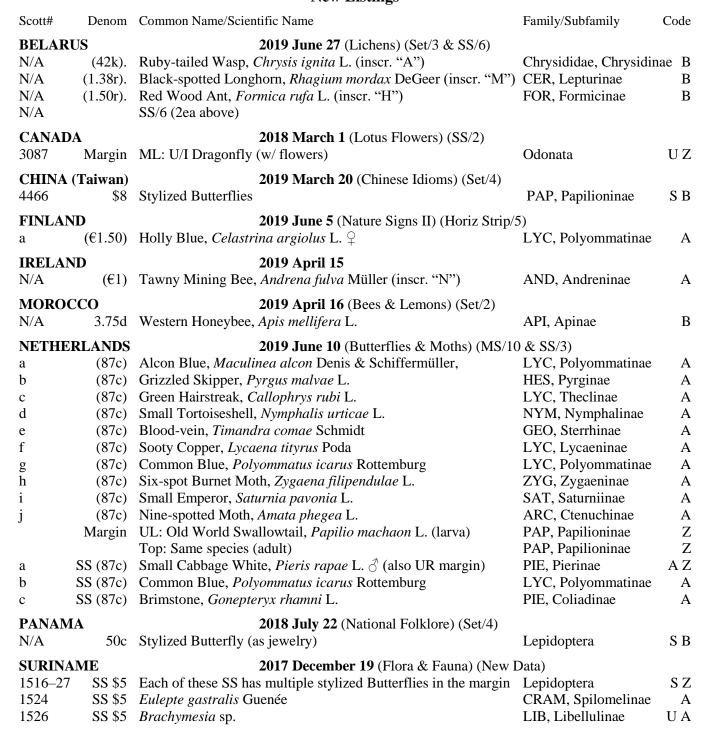


ENTOMOLOGY

Editor

Donald P. Wright, Jr., BU243 and José Reis, BU1889

New Listings



SURINA	ME (cont	inued) 2019 June 12 (Butterflies) (MS/24 + 4 labe	ls)	
a		Giant Brimstone, Anteos maerula Fabr. (inscr. "C")	PIE, Coliadinae	A
b	\$4.50	Orange Albatross, Appias nero Fabr.	PIE, Pierinae	A
c	\$6	Orange Emigrant, Catopsilia scylla L.	PIE, Coliadinae	A
d	\$7	Labrador Sulfur, Colias nastes Boisduval	PIE, Coliadinae	A
e	\$9	Orange Butterfly, <i>Colias vauthierii</i> Guerin- Méneville ♂	PIE, Coliadinae	A
f	\$10	Violet Tip, Colotis celimene Lucas	PIE, Pierinae	A
g	\$11	Scarlet Tip, Colotis danae Fabr.	PIE, Pierinae	A
h	\$12	Purple Tip, Colotis ione Godart	PIE, Pierinae	A
i	\$14	Queen Purple Tip, Colotis regina Trimen	PIE, Pierinae	A
j	\$18	1 1	PAP, Papilioninae	A
k	\$20	Gloss Swallowtail, Papilio pericles Wallace	PAP, Papilioninae	A
1	\$22	Three-tailed Swallowtail, Papilio pilumnus Boisduval	PAP, Papilioninae	A
N/A		MS/24 (2ea #a–l + 4 labels)		
	Labels	L: Orange Emigrant, <i>Catopsilia scylla</i> L.	PIE, Coliadinae	Z
		ML: Scarlet Tip, Colotis danae Fabr.	PIE, Pierinae	Z
		MR: Three-tailed Swallowtail, Papilio pilumnus Boisduval	PAP, Papilioninae	Z
		R: Gloss Swallowtail, <i>Papilio pericles</i> Wallace	PAP, Papilioninae	Z
SWEDE	N	2018 August 23 (Good Luck Greetings) (V	ert Strip/5)	
2828b	(9k)	Nine-spotted Ladybird, Coccinella novemnotata Herbst	COC, Coccinellinae	A
TAJIKI		2018 April 20 (Cats) (Horiz Strip/3)	NT 1 1' 1	a D
492b	4.20s	Cat playing with stylized Butterfly	Nymphalidae	S B
TUVALU 2018 December 5 (Nebulae) (MS/4) 1427b \$2 "Bug" or "Butterfly" Nebula (NGC 6302)		X		
UNITED	NATION	NS (New York) 2019 May 20 (World Ree Day) (SS/1)		
		NS (New York) 2019 May 20 (World Bee Day) (SS/1)	COL Dinhaglossinae	A
UNITED N/A	SS \$3	Cadeguala occidentalis Haliday	COL, Diphaglossinae API. Apinae	A S Z
N/A	SS \$3 Margin	Cadeguala occidentalis Haliday UR: Bee silhouette	COL, Diphaglossinae API, Apinae	A S Z
N/A UNITED	SS \$3 Margin NATION	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1)	API, Apinae	SZ
N/A	SS \$3 Margin NATION 2.60fr	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville	API, Apinae API, Apinae	S Z
N/A UNITED	SS \$3 Margin NATION 2.60fr	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1)	API, Apinae	SZ
N/A UNITED N/A	SS \$3 Margin NATION 2.60fr Margin	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville	API, Apinae API, Apinae	S Z
N/A UNITED N/A	SS \$3 Margin O NATION 2.60fr Margin O NATION	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette	API, Apinae API, Apinae API, Apinae API, Apinae	S Z A S Z
N/A UNITED N/A UNITED	SS \$3 Margin NATION 2.60fr Margin NATION €2.70	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette NS (Vienna) 2019 May 20 (World Bee Day) (SS/1)	API, Apinae API, Apinae API, Apinae	S Z A S Z
N/A UNITED N/A UNITED N/A	SS \$3 Margin NATION 2.60fr Margin NATION €2.70 Margin	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette NS (Vienna) 2019 May 20 (World Bee Day) (SS/1) Common Long-horned Bee, Melissodes communis Cresson LR: Bee silhouette	API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae	S Z A S Z
N/A UNITED N/A UNITED N/A UNITED	SS \$3 Margin NATION 2.60fr Margin NATION €2.70 Margin STATES	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette NS (Vienna) 2019 May 20 (World Bee Day) (SS/1) Common Long-horned Bee, Melissodes communis Cresson LR: Bee silhouette 2019 May 22 (Sesame Street Muppets) (MS	API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae	SZ A SZ
N/A UNITED N/A UNITED N/A UNITED 5394g	SS \$3 Margin NATION 2.60fr Margin NATION 62.70 Margin STATES (55c)	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette NS (Vienna) 2019 May 20 (World Bee Day) (SS/1) Common Long-horned Bee, Melissodes communis Cresson LR: Bee silhouette 2019 May 22 (Sesame Street Muppets) (MS Very stylized Caterpillar (w/ "Oscar the Grouch" Muppet)	API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae S/16) Lepidoptera	S Z A S Z
N/A UNITED N/A UNITED N/A UNITED 5394g VIETNA	SS \$3 Margin NATION 2.60fr Margin NATION 62.70 Margin STATES (55c)	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette NS (Vienna) 2019 May 20 (World Bee Day) (SS/1) Common Long-horned Bee, Melissodes communis Cresson LR: Bee silhouette 2019 May 22 (Sesame Street Muppets) (MS Very stylized Caterpillar (w/ "Oscar the Grouch" Muppet) 2018 August 18 (Fauna of Kon Ka Kinh Pa	API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae S/16) Lepidoptera ark) (Set/4 & SS/4)	S Z A S Z A S Z
N/A UNITED N/A UNITED N/A UNITED 5394g VIETNA 3611	SS \$3 Margin NATION 2.60fr Margin NATION 62.70 Margin STATES (55c)	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette NS (Vienna) 2019 May 20 (World Bee Day) (SS/1) Common Long-horned Bee, Melissodes communis Cresson LR: Bee silhouette S 2019 May 22 (Sesame Street Muppets) (MS Very stylized Caterpillar (w/ "Oscar the Grouch" Muppet) 2018 August 18 (Fauna of Kon Ka Kinh Pa Dark-horned Lantern-Fly, Pyrops spinolae Westwood (perf 13)	API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae S/16) Lepidoptera ark) (Set/4 & SS/4)	SZ A SZ
N/A UNITED N/A UNITED N/A UNITED 5394g VIETNA	SS \$3 Margin NATION 2.60fr Margin NATION 62.70 Margin STATES (55c)	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette NS (Vienna) 2019 May 20 (World Bee Day) (SS/1) Common Long-horned Bee, Melissodes communis Cresson LR: Bee silhouette 2019 May 22 (Sesame Street Muppets) (MS Very stylized Caterpillar (w/ "Oscar the Grouch" Muppet) 2018 August 18 (Fauna of Kon Ka Kinh Pa	API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae S/16) Lepidoptera ark) (Set/4 & SS/4)	S Z A S Z A S Z
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N/A UNITED N/A UNITED N/A UNITED 5394g VIETNA 3611	SS \$3 Margin NATION 2.60fr Margin NATION 62.70 Margin STATES (55c)	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette NS (Vienna) 2019 May 20 (World Bee Day) (SS/1) Common Long-horned Bee, Melissodes communis Cresson LR: Bee silhouette S 2019 May 22 (Sesame Street Muppets) (MS) Very stylized Caterpillar (w/ "Oscar the Grouch" Muppet) 2018 August 18 (Fauna of Kon Ka Kinh Pa Dark-horned Lantern-Fly, Pyrops spinolae Westwood (perf 13) SS/4 (Sc#3608–11) (perf 13½×13¾) 2019 June 11 (China World Stamp Exhibition	API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae S/16) Lepidoptera ark) (Set/4 & SS/4) FUL, Fulgorinae	S Z A S Z A S Z
N/A UNITED N/A UNITED N/A UNITED 5394g VIETNA 3611 3611a	SS \$3 Margin NATION 2.60fr Margin NATION 62.70 Margin STATES (55c) MM 10500d	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette NS (Vienna) 2019 May 20 (World Bee Day) (SS/1) Common Long-horned Bee, Melissodes communis Cresson LR: Bee silhouette S 2019 May 22 (Sesame Street Muppets) (MS Very stylized Caterpillar (w/ "Oscar the Grouch" Muppet) 2018 August 18 (Fauna of Kon Ka Kinh Pa Dark-horned Lantern-Fly, Pyrops spinolae Westwood (perf 13) SS/4 (Sc#3608–11) (perf 13½×13¾) 2019 June 11 (China World Stamp Exhibition	API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae S/16) Lepidoptera ark) (Set/4 & SS/4) FUL, Fulgorinae sion) (Set/4, MS/8, SS/1)	S Z A S Z S C A
N/A UNITED N/A UNITED N/A UNITED 5394g VIETNA 3611 3611a N/A	SS \$3 Margin NATION 2.60fr Margin NATION €2.70 Margin STATES (55c) MM 10500d	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette NS (Vienna) 2019 May 20 (World Bee Day) (SS/1) Common Long-horned Bee, Melissodes communis Cresson LR: Bee silhouette S 2019 May 22 (Sesame Street Muppets) (MS Very stylized Caterpillar (w/ "Oscar the Grouch" Muppet) 2018 August 18 (Fauna of Kon Ka Kinh Pa Dark-horned Lantern-Fly, Pyrops spinolae Westwood (perf 13) SS/4 (Sc#3608−11) (perf 13½×13¾) 2019 June 11 (China World Stamp Exhibits Chain Swordtail, Graphium aristeus Stoll Great Purple, Sasakia charonda Hewitson ♂	API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae S/16) Lepidoptera ark) (Set/4 & SS/4) FUL, Fulgorinae ion) (Set/4, MS/8, SS/1) PAP, Papilioninae	SZ A SZ A SZ A A A
N/A UNITED N/A UNITED N/A UNITED 5394g VIETNA 3611 3611a N/A N/A	SS \$3 Margin NATION 2.60fr Margin NATION €2.70 Margin STATES (55c) M 10500d 4000d 4000d	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette NS (Vienna) 2019 May 20 (World Bee Day) (SS/1) Common Long-horned Bee, Melissodes communis Cresson LR: Bee silhouette S 2019 May 22 (Sesame Street Muppets) (MS Very stylized Caterpillar (w/ "Oscar the Grouch" Muppet) 2018 August 18 (Fauna of Kon Ka Kinh Pa Dark-horned Lantern-Fly, Pyrops spinolae Westwood (perf 13) SS/4 (Sc#3608−11) (perf 13½×13¾) 2019 June 11 (China World Stamp Exhibits Chain Swordtail, Graphium aristeus Stoll Great Purple, Sasakia charonda Hewitson ♂ Orange Oakleaf, Kallima inachus Boisduval	API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae S/16) Lepidoptera ark) (Set/4 & SS/4) FUL, Fulgorinae ion) (Set/4, MS/8, SS/1) PAP, Papilioninae NYM, Apaturinae	SZ A SZ A SZ A A A
N/A UNITED N/A UNITED N/A UNITED 5394g VIETNA 3611 3611a N/A N/A N/A	SS \$3 Margin 2.60fr Margin 2.60fr Margin NATION €2.70 Margin STATES (55c) M 10500d 4000d 4000d 6000d	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette NS (Vienna) 2019 May 20 (World Bee Day) (SS/1) Common Long-horned Bee, Melissodes communis Cresson LR: Bee silhouette S 2019 May 22 (Sesame Street Muppets) (MS Very stylized Caterpillar (w/ "Oscar the Grouch" Muppet) 2018 August 18 (Fauna of Kon Ka Kinh Pa Dark-horned Lantern-Fly, Pyrops spinolae Westwood (perf 13) SS/4 (Sc#3608−11) (perf 13½×13¾) 2019 June 11 (China World Stamp Exhibits Chain Swordtail, Graphium aristeus Stoll Great Purple, Sasakia charonda Hewitson ♂ Orange Oakleaf, Kallima inachus Boisduval	API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae S/16) Lepidoptera ark) (Set/4 & SS/4) FUL, Fulgorinae Sion) (Set/4, MS/8, SS/1) PAP, Papilioninae NYM, Apaturinae NYM, Nymphalinae	SZ A SZ A SZ A A A A A
N/A UNITED N/A UNITED N/A UNITED 5394g VIETNA 3611 3611a N/A N/A N/A N/A	SS \$3 Margin 2.60fr Margin 2.60fr Margin NATION €2.70 Margin STATES (55c) M 10500d 4000d 4000d 6000d	Cadeguala occidentalis Haliday UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette NS (Vienna) 2019 May 20 (World Bee Day) (SS/1) Common Long-horned Bee, Melissodes communis Cresson LR: Bee silhouette S 2019 May 22 (Sesame Street Muppets) (MS Very stylized Caterpillar (w/ "Oscar the Grouch" Muppet) 2018 August 18 (Fauna of Kon Ka Kinh Pa Dark-horned Lantern-Fly, Pyrops spinolae Westwood (perf 13) SS/4 (Sc#3608–11) (perf 13½×13¾) 2019 June 11 (China World Stamp Exhibits Chain Swordtail, Graphium aristeus Stoll Great Purple, Sasakia charonda Hewitson ♂ Orange Oakleaf, Kallima inachus Boisduval Golden Birdwing, Troides aeacus C&R Felder	API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae S/16) Lepidoptera ark) (Set/4 & SS/4) FUL, Fulgorinae Sion) (Set/4, MS/8, SS/1) PAP, Papilioninae NYM, Apaturinae NYM, Nymphalinae	SZ A SZ SC A A A A A A C
N/A UNITED N/A UNITED N/A UNITED 5394g VIETNA 3611 3611a N/A N/A N/A N/A	SS \$3 Margin NATION 2.60fr Margin NATION €2.70 Margin STATES (55c) AM 10500d 4000d 4000d 6000d 8000d	UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette NS (Vienna) 2019 May 20 (World Bee Day) (SS/1) Common Long-horned Bee, Melissodes communis Cresson LR: Bee silhouette S 2019 May 22 (Sesame Street Muppets) (MS Very stylized Caterpillar (w/ "Oscar the Grouch" Muppet) 2018 August 18 (Fauna of Kon Ka Kinh Pa Dark-horned Lantern-Fly, Pyrops spinolae Westwood (perf 13) SS/4 (Sc#3608–11) (perf 13½×13¾) 2019 June 11 (China World Stamp Exhibits Chain Swordtail, Graphium aristeus Stoll Great Purple, Sasakia charonda Hewitson ♂ Orange Oakleaf, Kallima inachus Boisduval Golden Birdwing, Troides aeacus C&R Felder MS/8 (2ea G. aristeus & S. charonda + 8 labels)	API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae S/16) Lepidoptera ark) (Set/4 & SS/4) FUL, Fulgorinae ion) (Set/4, MS/8, SS/1) PAP, Papilioninae NYM, Apaturinae NYM, Nymphalinae PAP, Papilioninae	SZ A SZ A SZ A C C A A A A A A A C Z Z
N/A UNITED N/A UNITED N/A UNITED 5394g VIETNA 3611 3611a N/A N/A N/A N/A	SS \$3 Margin NATION 2.60fr Margin NATION €2.70 Margin STATES (55c) AM 10500d 4000d 4000d 6000d 8000d	UR: Bee silhouette NS (Geneva) 2019 May 20 (World Bee Day) (SS/1) Giant Bumblebee, Bombus dahlbomii Guerin- Méneville LR: Bee silhouette NS (Vienna) 2019 May 20 (World Bee Day) (SS/1) Common Long-horned Bee, Melissodes communis Cresson LR: Bee silhouette S 2019 May 22 (Sesame Street Muppets) (MS) Very stylized Caterpillar (w/ "Oscar the Grouch" Muppet) 2018 August 18 (Fauna of Kon Ka Kinh Pa Dark-horned Lantern-Fly, Pyrops spinolae Westwood (perf 13) SS/4 (Sc#3608−11) (perf 13½×13¾) 2019 June 11 (China World Stamp Exhibite Chain Swordtail, Graphium aristeus Stoll Great Purple, Sasakia charonda Hewitson ♂ Orange Oakleaf, Kallima inachus Boisduval Golden Birdwing, Troides aeacus C&R Felder MS/8 (2ea G. aristeus & S. charonda + 8 labels) UL: Green Dragontail, Lamproptera meges Zinken-Sommer	API, Apinae API, Apinae API, Apinae API, Apinae API, Apinae S/16) Lepidoptera ark) (Set/4 & SS/4) FUL, Fulgorinae Son) (Set/4, MS/8, SS/1) PAP, Papilioninae NYM, Apaturinae NYM, Nymphalinae PAP, Papilioninae PAP, Papilioninae	SZ A SZ SC A A A A A A C

VIET	NAM (contir	nued)		
, 123	Labels		aristeus stamp)	SZ
		Stylized Butterfly eggs on leaf (w/ S. charonda stamp)	Lepidoptera	SZ
		Stylized larva (w/ G. aristeus stamp)	Lepidoptera	SZ
		Stylized Swallowtail butterfly (w/ G. aristeus stamp)	Lepidoptera	SZ
		Stylized chrysalis (w/ S. charonda stamp)	Lepidoptera	$\tilde{S}Z$
N/A	SS 15000d	Green Dragontail, <i>Lamproptera meges</i> Zinken-Sommer	PAP, Papilioninae	A
		Beyond the Catalog (Issues of dubious validity)	•	
ANG	OLA	2019 May 15 (2019: Year of the Pig) (SS/1) (ANG190102b)	
N/A		UL & UR: Stylized Butterflies	Lepidoptera	SZ
	C	2019 May 15 (Malaria) (Set/4 & SS/1) (AN	• •	
N/A	300k	Anopheles maculipennis Meigen (w/ inoculation)	CUL, Anophelinae	SB
N/A		Anopheles maculipennis Meigen (fumigation)	CUL, Anophelinae	S B
N/A			CUL, Anophelinae	S B
		Anopheles maculipennis Meigen (w/ hospitalized child)	Plasmodiidae	
N/A		Plasmodium malariae (under microscope)		B Z
		LL: Anopheles maculipennis Meigen	CUL, Anophelinae	L
	•	agorno Karabakh) 2016 May 20 (Flora & Fauna of Artsakh) (S	,	
N/A	500d	Marbled White, Melanargia galathea L.	NYM, Satyrinae	A
GUIN	NEA	2019 June 26 (Butterflies) (MS/4 & SS/1) ((GU190215a&b)	
a	12500fr	Vibrant Sulfur, Hebomoia leucippe Cramer	PIE, Pierinae	Α
b	12500fr	Orange Tiger, Danaus genutia Cramer	NYM, Danainae	Α
c	12500fr	Old World Swallowtail, Papilio machaon L.	PAP, Papilioninae	Α
d	12500fr	BD Butterfly, Callicore cynosura Doubleday & Westwood	NYM, Biblidinae	Α
	Margin	UL: Butterfly silhouette	Lepidoptera	SZ
N/A	SS 50000fr	Blue Emperor, Papilio ulysses L. (Cap: Morpho peleides)	PAP, Papilioninae	Α
	Margin	R: Cairns Birdwing, <i>Troides priamus euphorion</i> Gray \circlearrowleft	PAP, Papilioninae	\mathbf{Z}
		UL: Butterfly silhouette	Lepidoptera	SZ
GUIN	NEA-BISSAU	2019 June 18 (Butterflies) (MS/6 & SS/1 +	label) (GB190609a&b)	
a	640fr	Brimstone, Gonepteryx rhamni L.	PIE, Coliadinae	Α
b	640fr	Clouded Apollo, Parnassius mnemosyne L.	PAP, Papilioninae	Α
c	640fr	Large Tortoiseshell, Nymphalis polychloros L.	NYM, Nymphalinae	A
d		Spurge Hawkmoth, Hyles euphorbiae L.	SPH, Macroglossinae	A
e		Dark Green Fritillary, Speyeria aglaja L.	NYM, Heliconiinae	A
f		Elephant Hawkmoth, Deilephila elpenor L.	SPH, Macroglossinae	A
b	SS 3300fr	Red Admiral, Vanessa atalanta L.	NYM, Nymphalinae	A
	Label	Apollo, Parnassius apollo L.	PAP, Papilioninae	Z
	Margin	Top: Old World Swallowtail, Papilio machaon L. (larva)	PAP, Papilioninae	Z
	C	R: Same species (two adults) (Cap: Papilio glaucus)	PAP, Papilioninae	Z
		MR: Same species (chrysalis)	PAP, Papilioninae	Z
MAI	DIVE ISLAN	NDS 2019 April 30 (Bees) (MS/4 & SS/1) (MLI	0190106a&b)	
a		Western Honeybee, <i>Apis mellifera</i> L. (on white flower facing L)		A
b	22r	Same species (on white flower facing R)	API, Apinae	A
b	22r	Same species (on purple flower)	API, Apinae	A
d	22r	White-tailed Bumblebee, <i>Bombus terrestris</i> L.	API, Apinae	A
		LR: U/I Bee	Apidae	UΖ
	2.241.5111	Bot: U/I Hoverfly	Syrphidae	UΖ
		· · · · · · · · · · · · · · · · · · ·	J F	- —

MAL	DIVE ISLAN	NDS (continued)		
N/A		Western Honeybee, Apis mellifera L.	API, Apinae	A
		UL: Yellow Jacket, <i>Vespula</i> sp.	VES, Vespinae	UZ
		ML: Bumblebee, <i>Bombus</i> sp.	API, Apinae	UΖ
		LL: Western Honeybee, <i>Apis mellifera</i> L.	API, Apinae	\overline{z}
		LR: U/I Hoverfly	Syrphidae	UZ
		LR: Western Honeybee, <i>Apis mellifera</i> L.	API, Apinae	Z
			-	
	22	2019 April 30 (Butterflies) (MS/4 & SS/1) (
a		Chalk-Hill Blue, <i>Polyommatus coridon</i> Poda	LYC, Polyommatinae	
b		Brimstone, Gonepteryx rhamni L.	PIE, Coliadinae	A
c d		Common Blue, <i>Polyommatus icarus</i> Rottemburg Brown Argus, <i>Aricia agestis</i> Denis & Schiffermüller	LYC, Polyommatinae LYC, Polyommatinae	
a	Margin	UR: Old World Swallowtail, <i>Papilio machaon</i> L.	PAP, Papilioninae	A Z
N/A	•	Clouded Yellow, <i>Colias croceus</i> Geoffroy	PIE, Coliadinae	A
1 N / A		R: Silver-studded Blue, <i>Plebejus argus</i> L. (w/ dozens puddling)	The state of the s	Z
	Maigin		•	L
	20	2019 May 15 (Bee-eater Birds) (MS/4 & SS	/1) (MLD190303a&b)	II C
a		U/I Insect (in bird's beak)		UC
N/A	SS Margin	U/I Insect (in bird's beak)		UCZ
MOZ	AMBIQUE	2019 April 10 (Bees) (MS/4 & SS/1) (MOZ		
a	116m	Violet Carpenter Bee, <i>Xylocopa violacea</i> L.,	API, Xylocopinae	A
b	116m	Great Yellow Bumble Bee, <i>Bombus distinguendus</i> Morawitz	API, Apinae	A
c		Blue Orchard Bee, Osmia lignaria Say	MEG, Megachilinae	A
d		Tri-colored Bee, <i>Bombus ternarius</i> Say	API, Apinae	A
	_	UR: Western Honeybee, Apis mellifera L. (three)	API, Apinae	Z
N/A		Brown Bumble Bee, Bombus pascuorum Scopoli	API, Apinae	A
	Margin	UL: Gray-backed Mining Bee, Andrena vaga Panzer	AND, Andreninae	\mathbf{Z}
		ML: Carpenter Bee, <i>Xylocopa valga</i> Gerstaecker	API, Xylocopinae	Z
		MR: Violet Carpenter Bee, <i>Xylocopa violacea</i> L.	API, Xylocopinae	Z
		2019 April 10 (Malaria) (MS/4 & SS/1) (Me	OZ190221a&b)	
a	116m	African Malaria Mosquito, Anopheles gambiae Giles	CUL, Anophelinae	В
N/A	SS 300m	African Malaria Mosquito, Anopheles gambiae Giles	CUL, Anophelinae	В
		2019 June 10 (Butterflies) (MS/4 & SS/1) (1	MOZ190313a&b)	
a	116m	Meadow Argus, Junonia villida Fabr.	NYM, Nymphalinae	A
b	116m	Gray Hairstreak, Strymon melinus Hübner	LYC, Theclinae	A
c	116m	Large Tree Nymph, Idea leuconoe Erichson	NYM, Danainae	A
d		Mexican King Cracker, Hamadryas amphinome mexicana Lucas	NYM, Biblidinae	A
N/A		Sapho Longwing, Heliconius sapho Drury	NYM, Heliconiinae	A
	Margin	Top: Peacock, Nymphalis io L. (Cap: Aglais io)	NYM, Nymphalinae	Z
NIGE	CR C	2019 June 26 (Butterflies) (MS/4 & SS/1) (1	NIG190308a&b)	
a	800fr	Tailed Jay, Graphium agamemnon L.	PAP, Papilioninae	A
b	800fr	Malabar Tree Nymph, <i>Idea malabarica</i> Moore	NYM, Danainae	A
c	800fr	Starry Cracker, Hamadryas laodamia Cramer	NYM, Biblidinae	A
d	800fr	Tiger Longwing, Heliconius hecale Fabr.	NYM, Heliconiinae	A
	Margin	UL: U/I Butterfly	Nymphalidae	UZ
	-	LL: Papilio sp.	PAP, Papilioninae	UZ
		UR: Peacock, Nymphalis io L.	NYM, Nymphalinae	Z
		LR: U/I Butterfly	Lepidoptera	UZ

NIGE	${f R}$ (continued)
NT/A	22000

N/A	SS 3300fr	Malachite, Siproeta stelenes L.	NYM, Nymphalinae	Α
	Margin	UL: Gulf Fritillary, Agraulis vanillae L.	NYM, Heliconiinae	Z
		Bot: Scarlet Peacock, Anartia amathea L.	NYM, Nymphalinae	Z
		UR: Amber Phantom, Haetera piera L.	NYM, Satyrinae	Z
SIER	RA LEONE	2019 May 30 (Butterflies) (MS/4 & SS/	(1) (SRL190502a&b)	
a	12500le	Brimstone, Gonepteryx rhamni L.	PIE, Coliadinae	A
b	12500le	Red Admiral, Vanessa atalanta L.	NYM, Nymphalinae	Α
c	12500le	Meadow Brown, Maniola jurtina L.	NYM, Satyrinae	A
d	12500le	Silver-washed Fritillary, Argynnis paphia L.	NYM, Heliconiinae	Α
N/A	SS 50000le	Small Tortoiseshell, Nymphalis urticae L.	NYM, Nymphalinae	Α
	Margin	UL: Common Pierrot, Castalius rosimon Fabr.	LYC, Polyommatinae	Z
		Top: Common Rose, Atrophaneura hector L.	PAP, Papilioninae	Z
		R: Gold-banded Forester, Euphaedra neophron Hopffer	NYM, Limenitidinae	Z
		2019 May 30 (Bee-eaters) (SS/1) (SRL	190515b)	

N/A SS Margin UR: U/I Insect (in bird's beak) UZ

Jose again went to the Philatelic Department of Angolan Posts for further information about the Stamperija stamps for Angola and he reports the following:

"The person that received me this time is better informed about the problem of Stamperija stamps. She told me that she knows about the matter and had already questioned the authorities of the Ministry of Communications. She is waiting for an answer from them and thinks that possibly she will have an answer sometime this month [June]. When she has the answer, she will phone me.

"It seems that the former person responsible for the Post possibly had authorized the Stamperija issues but did not give the information about the matter to the present person responsible. She also told me that there are a lot of other people asking the Department about the legality of these issues and even the Minister has knowledge about the problem.

"Maria de Lurdes, who is responsible for the Philatelic Department, told me that in order to contact the Posts, email them at comercial@correiosdeangola.co.ao. If there are a lot of people asking about the matter, it may speed up getting an answer."

Jose and I have already used that email address, but so far no answer.

Code

A

Z

UZ

UZ

†Protostegidae

†Metriorhynchidae

Scott#

N/A



Denom Common Name/Scientific Name

SS 3600fr Archelon ischyros

Margin L: Geosaurus giganteus

UR: U/I marine species

LR: U/I marine species

PALEONTOLOGY

Editor Michael Kogan, BU1863 **New Listings**



Family

ANGO Each s		2019 May 15 (Prehistoric Water Animals) ^[1] ued in individual MS/10 with the same prehistoric animal in the n		
N/A	300k	Dunkleosteus terrelli (Cap: Dinichthys terrelli)	†Dunkleosteidae	Α
N/A		Ichthyosaurus communis	†Ichthyosauridae	A
N/A		Liopleurodon ferox	†Pliosauridae	A
N/A		Eromangasaurus australis	†Elasmosauridae	A
N/A				
1 N /A		Helicoprion bessonowi	†Helicoprionidae †Dunkleosteidae	A
	Margin	UL: Dunkleosteus terrelli	†Pliosauridae	Z Z
		LL: Liopleurodon ferox	1	
		UR: Eromangasaurus australis	†Elasmosauridae	Z
		LR: Ichthyosaurus communis	†Ichthyosauridae	Z
2019 May 15 (Charles Darwin & Dinosaurs) ^[1] (Set/4 & SS/1) Each stamp also issued in individual MS/10 with the same prehistoric animal in the margin.				
N/A	300k	Parasaurolophus walkeri (fossil) (w/ young Darwin portrait)	†Hadrosauridae	A
N/A		Parasaurolophus walkeri	†Hadrosauridae	A
N/A	300k	Ceratops horridus	†Ceratopsidae	A
N/A	300k	Tyrannosaurus rex (w/ old Darwin portrait)	†Tyrannosauridae	В
		Human evolution sequence	Hominidae	В
N/A	SS 1200k	Stegosaurus stenops (w/ old Darwin portrait)	†Stegosauridae	A
		UL: Ceratops horridus	†Ceratopsidae	Z
	C	LL: Parasaurolophus walker	†Hadrosauridae	\mathbf{Z}
		Bot: Tyrannosaurus rex (skull)	†Tyrannosauridae	Z
CENT	RAL AFRI	,		
a		Pistosaurus longaevus	†Pistosauridae	Α
b		Kronosaurus queenslandicus	†Pliosauridae	A
c	900fr	Plesiosaurus dolichodeirus	†Plesiosauridae	В
		Liopleurodon ferox	†Pliosauridae	В
d	900fr	Cymbospondylus natans	Order: †Ichthyosauria	A

2019 June 20 (Shells & Fossils)^[1] (MS/4 & SS/1) 850fr Ammonites (fossilized group in stone) Subclass: †Ammonoidea A a 850fr Ammonite Subclass: †Ammonoidea A c 850fr Trilobite, Elrathia kingii †Alokistocaridae d Α N/A SS 3300fr Trilobite Walliserops trifurcatus †Acastidae Α

CENT	TRAL AFRI	CA 2019 June 20 (210th anniv. Charles Darv	win) ^[1] (MS/4 & SS/1)	
a	900fr	Deinonychus antirrhopus (w/ young Darwin portrait)	†Dromaeosauridae	В
b	900fr	Tyrannosaurus rex (w/ Darwin statue)	†Tyrannosauridae	В
c	900fr	†Homo neanderthalensis (skull) (w/ HMS Beagle)	Hominidae	В
d	900fr	Camarasaurus supremus (w/ old Darwin portrait)	†Camarasauridae	В
N/A	SS 3600fr	Charles Darwin portrait		R
	Margin	UR: HMS Beagle (The Voyage of the Beagle 1831–1836)]	RZ
		LR: Camarasaurus supremus	†Camarasauridae	\mathbf{Z}
		Bot: Deinonychus antirrhopus	†Dromaeosauridae	Z
DJIBO	OUTI	2019 March 14 (Prehistoric Water Anim	nals) ^[1] (MS/4 & SS/1)	
a		Nothosaurus mirabilis (triangular)	†Nothosauridae	A
b		Carcharocles megalodon	†Otodontidae	A
c		Mosasaurus hoffmanni	†Mosasauridae	Α
d		Plesiosaurus dolichodeirus	†Plesiosauridae	Α
N/A	SS 1000fr	Geosaurus giganteus (triangular)	†Metriorhynchidae	Α
		UL & Bot: Liopleurodon ferox	†Pliosauridae	Z
		UR & Ctr: Elasmosaurus platyurus	†Elasmosauridae	\mathbf{Z}
		LL & LR: Stenopterygius quadriscissus	†Stenopterygiidae	Z
		2019 June 12 (Dinosaurs) ^[1] (MS/4 & SS	//1)	
a	250fr		erfamily: †Therizinosauroide	а А
b		Caudipteryx dongi	†Caudipteridae	Α
c		Archaeoceratops oshimai	†Archaeoceratopsidae	A
d		Rubeosaurus ovatus	†Ceratopsidae	A
N/A	SS 1000fr	Brachylophosaurus canadensis	†Hadrosauridae	Α
		Bot: Rubeosaurus ovatus	†Ceratopsidae	Z
	_		· •	
GUIN	EA-BISSAL	I 2019 May 21 (Flora & Fauna: Dinosaurs) ^[1] (MS/4 & SS/1)	
	EA-BISSAU 800fr	• ` `		Α
GUIN a b	800fr	Citipati osmolskae	†Oviraptoridae	A A
a b	800fr 800fr	Citipati osmolskae Mapusaurus roseae	†Oviraptoridae †Carcharodontosauridae	A A A
a	800fr	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus	†Oviraptoridae †Carcharodontosauridae †Spinosauridae	A A
a b c	800fr 800fr 800fr 800fr	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna	†Oviraptoridae †Carcharodontosauridae	A
a b c	800fr 800fr 800fr	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae	A A A
a b c	800fr 800fr 800fr 800fr Margin	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae	A A A Z
a b c d	800fr 800fr 800fr 800fr Margin SS 3300fr	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Tyrannosauridae	A A A Z Z
a b c d	800fr 800fr 800fr 800fr Margin SS 3300fr	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex Lambeosaurus lambei	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Tyrannosauridae †Hadrosauridae †Ceratopsidae †Spinosauridae	A A A Z Z A
a b c d	800fr 800fr 800fr 800fr Margin SS 3300fr	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex Lambeosaurus lambei UR: Coahuilaceratops magnacuerna	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Tyrannosauridae †Hadrosauridae †Ceratopsidae	A A Z Z A Z
a b c d	800fr 800fr 800fr 800fr Margin SS 3300fr	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex Lambeosaurus lambei UR: Coahuilaceratops magnacuerna LL: Spinosaurus aegyptiacus	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Tyrannosauridae †Hadrosauridae †Ceratopsidae †Spinosauridae †Tyrannosauridae	A A Z Z A Z Z
a b c d	800fr 800fr 800fr 800fr Margin SS 3300fr Margin	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex Lambeosaurus lambei UR: Coahuilaceratops magnacuerna LL: Spinosaurus aegyptiacus LR: Tyrannosaurus rex	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Tyrannosauridae †Hadrosauridae †Ceratopsidae †Spinosauridae †Tyrannosauridae	A A Z Z A Z Z
a b c d	800fr 800fr 800fr 800fr Margin SS 3300fr Margin	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex Lambeosaurus lambei UR: Coahuilaceratops magnacuerna LL: Spinosaurus aegyptiacus LR: Tyrannosaurus rex 2019 April 30 (Dinosaurs)[1] (MS/4 & SS	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Tyrannosauridae †Hadrosauridae †Ceratopsidae †Spinosauridae †Tyrannosauridae	A A A Z Z A Z Z Z
a b c d	800fr 800fr 800fr 800fr Margin SS 3300fr Margin	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex Lambeosaurus lambei UR: Coahuilaceratops magnacuerna LL: Spinosaurus aegyptiacus LR: Tyrannosaurus rex 2019 April 30 (Dinosaurs) ^[1] (MS/4 & SS Scipionyx samniticus	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Tyrannosauridae †Hadrosauridae †Ceratopsidae †Spinosauridae †Tyrannosauridae	A A A Z Z A Z Z Z Z
a b c d N/A MALI a b	800fr 800fr 800fr 800fr Margin SS 3300fr Margin DIVES	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex Lambeosaurus lambei UR: Coahuilaceratops magnacuerna LL: Spinosaurus aegyptiacus LR: Tyrannosaurus rex 2019 April 30 (Dinosaurs) ^[1] (MS/4 & SS Scipionyx samniticus Pachycephalosaurus wyomingensis	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Tyrannosauridae †Hadrosauridae †Ceratopsidae †Spinosauridae †Tyrannosauridae †Tyrannosauridae †Tyrannosauridae †Hadrosauridae †Hadrosauridae	A A Z Z A Z Z A A A A
a b c d	800fr 800fr 800fr 800fr Margin SS 3300fr Margin DIVES 20r 20r 20r 20r Margin	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex Lambeosaurus lambei UR: Coahuilaceratops magnacuerna LL: Spinosaurus aegyptiacus LR: Tyrannosaurus rex 2019 April 30 (Dinosaurs)[1] (MS/4 & SS Scipionyx samniticus Pachycephalosaurus wyomingensis Maiasaura peeblesorum Nipponosaurus sachalinensis LR: Stegosaurus stenops (skeleton)	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Tyrannosauridae †Hadrosauridae †Ceratopsidae †Spinosauridae †Tyrannosauridae †Tyrannosauridae †Tyrannosauridae †Hadrosauridae †Hadrosauridae †Hadrosauridae †Hadrosauridae †Stegosauridae	A A Z Z A Z Z A A A A
a b c d N/A MALI a b c	800fr 800fr 800fr 800fr Margin SS 3300fr Margin DIVES 20r 20r 20r 20r Margin	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex Lambeosaurus lambei UR: Coahuilaceratops magnacuerna LL: Spinosaurus aegyptiacus LR: Tyrannosaurus rex 2019 April 30 (Dinosaurs)[1] (MS/4 & SS Scipionyx samniticus Pachycephalosaurus wyomingensis Maiasaura peeblesorum Nipponosaurus sachalinensis	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Tyrannosauridae †Hadrosauridae †Ceratopsidae †Spinosauridae †Tyrannosauridae †Tyrannosauridae †Tyrannosauridae †Hadrosauridae †Hadrosauridae	A A Z Z A Z Z Z Z A A A A A A
a b c d	800fr 800fr 800fr 800fr Margin SS 3300fr Margin DIVES 20r 20r 20r 20r Margin SS 60r	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex Lambeosaurus lambei UR: Coahuilaceratops magnacuerna LL: Spinosaurus aegyptiacus LR: Tyrannosaurus rex 2019 April 30 (Dinosaurs)[1] (MS/4 & SS Scipionyx samniticus Pachycephalosaurus wyomingensis Maiasaura peeblesorum Nipponosaurus sachalinensis LR: Stegosaurus stenops (skeleton)	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Tyrannosauridae †Hadrosauridae †Ceratopsidae †Spinosauridae †Tyrannosauridae †Tyrannosauridae †Tyrannosauridae †Hadrosauridae †Hadrosauridae †Hadrosauridae †Hadrosauridae †Stegosauridae	A A Z Z A Z Z Z A A A A A Z Z
a b c d	800fr 800fr 800fr 800fr Margin SS 3300fr Margin DIVES 20r 20r 20r 20r Margin SS 60r	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex Lambeosaurus lambei UR: Coahuilaceratops magnacuerna LL: Spinosaurus aegyptiacus LR: Tyrannosaurus rex 2019 April 30 (Dinosaurs)[1] (MS/4 & SS Scipionyx samniticus Pachycephalosaurus wyomingensis Maiasaura peeblesorum Nipponosaurus sachalinensis LR: Stegosaurus stenops (skeleton) Fukuiraptor kitadaniensis	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Tyrannosauridae †Hadrosauridae †Spinosauridae †Spinosauridae †Tyrannosauridae †Tyrannosauridae †Tyrannosauridae †Hadrosauridae †Hadrosauridae †Hadrosauridae †Hadrosauridae †Tyrannosauridae †Tyrannosauridae	A A Z Z A Z Z Z Z A A A A A A A A A
a b c d	800fr 800fr 800fr 800fr Margin SS 3300fr Margin DIVES 20r 20r 20r 20r Margin SS 60r	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex Lambeosaurus lambei UR: Coahuilaceratops magnacuerna LL: Spinosaurus aegyptiacus LR: Tyrannosaurus rex 2019 April 30 (Dinosaurs)[1] (MS/4 & SS Scipionyx samniticus Pachycephalosaurus wyomingensis Maiasaura peeblesorum Nipponosaurus sachalinensis LR: Stegosaurus stenops (skeleton) Fukuiraptor kitadaniensis LL: Tyrannosaurus rex 2019 April 30 (Extinct Species)[1] (MS/4)	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Tyrannosauridae †Hadrosauridae †Spinosauridae †Spinosauridae †Tyrannosauridae †Tyrannosauridae †Tyrannosauridae †Tyrannosauridae †Hadrosauridae †Hadrosauridae †Hadrosauridae †Hadrosauridae †Stegosauridae Clade: †Megaraptora †Tyrannosauridae & SS/1) Chlamyphoridae	A A Z Z A Z Z Z Z A A A A A A A A A
a b c d N/A MALI a b c d	800fr 800fr 800fr 800fr Margin SS 3300fr Margin DIVES 20r 20r 20r 20r Margin SS 60r Margin 20r 20r	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex Lambeosaurus lambei UR: Coahuilaceratops magnacuerna LL: Spinosaurus aegyptiacus LR: Tyrannosaurus rex 2019 April 30 (Dinosaurs) ^[1] (MS/4 & SS Scipionyx samniticus Pachycephalosaurus wyomingensis Maiasaura peeblesorum Nipponosaurus sachalinensis LR: Stegosaurus stenops (skeleton) Fukuiraptor kitadaniensis LL: Tyrannosaurus rex 2019 April 30 (Extinct Species) ^[1] (MS/4 †Glyptodon clavipes †Castoroides ohioensis	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Tyrannosauridae †Hadrosauridae †Spinosauridae †Spinosauridae †Tyrannosauridae †Tyrannosauridae †Spinosauridae †Tyrannosauridae †Tyrannosauridae †Hadrosauridae †Hadrosauridae †Hadrosauridae †Stegosauridae †Stegosauridae †Stegosauridae †Stegosauridae Clade: †Megaraptora †Tyrannosauridae & SS/1) Chlamyphoridae Castoridae	A A A Z Z Z Z Z Z A A A A A A A Z Z Z
a b c d N/A MALI a b c d N/A	800fr 800fr 800fr 800fr Margin SS 3300fr Margin DIVES 20r 20r 20r Margin SS 60r Margin 20r 20r 20r	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex Lambeosaurus lambei UR: Coahuilaceratops magnacuerna LL: Spinosaurus aegyptiacus LR: Tyrannosaurus rex 2019 April 30 (Dinosaurs)[1] (MS/4 & SS Scipionyx samniticus Pachycephalosaurus wyomingensis Maiasaura peeblesorum Nipponosaurus sachalinensis LR: Stegosaurus stenops (skeleton) Fukuiraptor kitadaniensis LL: Tyrannosaurus rex 2019 April 30 (Extinct Species)[1] (MS/4 †Glyptodon clavipes †Castoroides ohioensis Megaladapis edwardsi	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Carcharodontosauridae †Tyrannosauridae †Hadrosauridae †Spinosauridae †Spinosauridae †Tyrannosauridae †Tyrannosauridae †Hadrosauridae †Hadrosauridae †Hadrosauridae †Hadrosauridae †Tyrannosauridae †Stegosauridae †Stegosauridae †Stegosauridae Clade: †Megaraptora †Tyrannosauridae & SS/1) Chlamyphoridae Castoridae †Megaladapidae	A A A Z Z Z Z Z A A A A A Z A Z A A A A
a b c d N/A MALI a b c d N/A	800fr 800fr 800fr 800fr Margin SS 3300fr Margin DIVES 20r 20r 20r Margin SS 60r Margin 20r 20r 20r 20r 20r	Citipati osmolskae Mapusaurus roseae Spinosaurus aegyptiacus Coahuilaceratops magnacuerna UR: Mapusaurus roseae UR: Tyrannosaurus rex Lambeosaurus lambei UR: Coahuilaceratops magnacuerna LL: Spinosaurus aegyptiacus LR: Tyrannosaurus rex 2019 April 30 (Dinosaurs) ^[1] (MS/4 & SS Scipionyx samniticus Pachycephalosaurus wyomingensis Maiasaura peeblesorum Nipponosaurus sachalinensis LR: Stegosaurus stenops (skeleton) Fukuiraptor kitadaniensis LL: Tyrannosaurus rex 2019 April 30 (Extinct Species) ^[1] (MS/4 †Glyptodon clavipes †Castoroides ohioensis	†Oviraptoridae †Carcharodontosauridae †Spinosauridae †Ceratopsidae †Carcharodontosauridae †Tyrannosauridae †Hadrosauridae †Spinosauridae †Spinosauridae †Tyrannosauridae †Tyrannosauridae †Spinosauridae †Tyrannosauridae †Tyrannosauridae †Hadrosauridae †Hadrosauridae †Hadrosauridae †Stegosauridae †Stegosauridae †Stegosauridae †Stegosauridae Clade: †Megaraptora †Tyrannosauridae & SS/1) Chlamyphoridae Castoridae	A A A Z Z A A A A A A A A A A A A A A A

MALDIVES (continued)				
N/A	,	Palorchestes azael	†Palorchestidae	A
	Margin	Ctr: Giant Ground Sloth, Megatherium americanum	†Megatheriidae	\mathbf{Z}
	C	R: Arsinoitherium zitteli	†Arsinoitheriidae	Z
		2019 June 01 (Prehistoric Water Animals)	[1] (MS/4 & SS/1)	
a	20r	Dunkleosteus terrelli (Cap: Dinichthys terrelli)	†Dunkleosteidae	A
b		Mosasaurus hoffmanni	†Mosasauridae	A
c		Mosasaurus hoffmanni (chasing prey)	†Mosasauridae	A
d		Carcharocles megalodon	†Otodontidae	A
N/A		L: Pteranodon longiceps	†Pteranodontidae	В
		R: Mosasaurus hoffmanni	†Mosasauridae	В
	Margin		†Plesiosauridae	Z
MOZ	AMBIQUE	2019 June 10 (Dinosaurs) ^[1] (MS/4 & SS/1)	
a	116m	Monolophosaurus jiangi	Order: †Saurischia	A
b			†Azhdarchidae	A
c		Spinosaurus aegyptiacus	†Spinosauridae	A
d	116m	Parasaurolophus walkeri	†Hadrosauridae	A
N/A	SS 300m	Mosasaurus hoffmanni (not dinosaur)	†Mosasauridae	A
	Margin	UR: Spinosaurus aegyptiacus	†Spinosauridae	Z
		LR: West Indian Ocean Coelacanth, Latimeria chalumnae	Latimeriidae	Z
NIGE	CR CR	2019 June 26 (Dinosaurs) ^[1] (MS/4 & SS/1)	
a	800fr	Dimetrodon limbatus	†Sphenacodontidae	A
b	800fr	Tyrannosaurus rex	†Tyrannosauridae	A
c	800fr	Albertaceratops nesmoi	†Ceratopsidae	A
d	800fr	Spinosaurus aegyptiacus	†Spinosauridae	A
N/A	SS 3300fr	Ceratosaurus nasicornis	†Ceratosauridae	Α
	Margin	UR: Tyrannosaurus rex	†Tyrannosauridae	Z
		Bot: Dimetrodon limbatus	†Sphenacodontidae	Z
		2019 July 12 (African Union Conference N	Niger 2019) (MS/12)	
g	1000fr	U/I dinosaur skeleton (in Diori Hamani Airport terminal)	Ţ	J B
ST. T	HOMAS & 1	PRINCE IS. 2019 June 6 (Dinosaurs) ^[1] (MS/4 & SS/1)		
a	31d	Masiakasaurus knopfleri	†Noasauridae	A
b	31d	Dilophosaurus wetherilli	†Dilophosauridae	A
c	31d	Ouranosaurus nigeriensis	Clade: †Hadrosauriformes	A
d	31d	Kelenken guillermoi	†Phorusrhacidae	A
N/A	SS 124d	Styracosaurus ovatus	†Ceratopsidae	A
	Margin	L: Dilophosaurus wetherilli	†Dilophosauridae	\mathbf{Z}
		LR: Masiakasaurus knopfleri	†Noasauridae	Z
		LR: Ouranosaurus nigeriensis	Clade: †Hadrosauriformes	Z
SIER	RA LEONE	2019 March 28 (Dinosaurs)[1] (MS/4 & SS	//1)]	
a	12500le	Quetzalcoatlus northropi	†Azhdarchidae	A
b	12500le	Preondactylus buffarinii	Clade: †Preondactylia	A
c	12500le	Pachycephalosaurus wyomingensis	†Pachycephalosauridae	A
d	12500le	Gigantoraptor erlianensis	†Caenagnathidae	A
N/A	SS 50000le	Edmontosaurus regalis	†Hadrosauridae	A
	Margin	UR: Preondactylus buffarinii	Clade: †Preondactylia	Z
		LR: Quetzalcoatlus northropi	†Azhdarchidae	Z

C

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R

SIER	RA LEONE	(continued) 2019 May 30 (210th anniv. Charles D	Parwin) ^[1] (MS/4 & SS/1)	
a	12500le	Alamosaurus sanjuanensis	†Saltasauridae	A
b	12500le	Charles Darwin (w/ books)		R
c	12500le	†Ardipithecus kadabba (head) (w/ Darwin portrait)	Hominidae	В
d	12500le	Taniwhasaurus oweni	†Mosasauridae	В
N/A	SS 50000le	Human evolution sequence (w/ Darwin portrait)	Hominidae	В
	Margin	MR: †Ardipithecus kadabba (head)	Hominidae	Z
	_	LR: Taniwhasaurus oweni	†Mosasauridae	Z
CD A	· > T	004035 0 (T) 1) (1035 1 1	3.G. I D	

SPAIN 2019 May 2 (Tourism) (12 Months 12 Stamps: La Rioja)

N/A (60c) U/I Dinosaur footprints

The "A" rate is the domestic letter rate. La Rioja is a province in northern Spain. More than 120 million years ago, dinosaurs lived near the village of Enciso, which has a paleontology museum. They lived in a unique enclave, in the ancient Tethys Sea, where they left their footprints.





Other Stamps to Consider

HUNGARY

2019 June 3 (150th anniv. Hungarian Royal Geological Institute)

N/A 235fo Geological Institute lobby

The Hungarian Royal Geological Institute was the first state center for geological research in Hungary, whose foundation was approved by the Emperor Franz Joseph. During the 150 years of its existence, the institute has undergone numerous transformations and currently it operates under the name of the Mining and Geological Survey of Hungary. The first day cover shows paleontological finds: ammonite and sand dollar





UKRAINE 2019 June 3 (Mezyn National Nature Park) (MS/5)

8h MS/5 (a–e) Various flora & fauna

Commemorative Postmarks

UKRAINE

N/A

2019 June 3 (Mezyn National Nature Park)

A Mammoth is shown on the official FDC and commemorative postmarks were available in two places (Kyiv and Korop).

The park's area is more than 30,000 hectares covered with many lakes. In Sverdlovka village, there is a nature museum that informs of the park's territory, including its climatic, geographic, and other features. It also exhibits collections of insects, mosses, and geological materials.

Beside the unique natural complexes and objects, the park boasts about 50 archaeological monuments. The most noted is Mezyn Paleolithic Site that existed almost 20,000 years ago. It was the dwelling for hunters of mammoths, which they built from the bones of animals covered with their hides. The most valuable artifacts from the site were ancient works of art—ornamented figurines from mammoth ivory, meander bracelet, and a painted set of musical instruments made of animal bones.



Now there is the Mezyn Archaeological and Research Museum on the ancient site. The exposition covers the entire period from the Paleolithic to the present times. Different eras and cultures are represented by archaeological, architectural, and historical monuments in the villages of Buzhanka, Kurylivka, Sverdlovka, Radychiv, and others.

Future Issues

2019.08.29: **United States:** (initially scheduled for June 28) *Tyrannosaurus rex*. On 12 March 2019, the U.S. Postal Service revealed additional stamps for 2019. One of the extra stamp sets is the set of four *Tyrannosaurus rex* stamps to be issued in Washington, DC:

"With this pane of 16 stamps, the Postal Service brings *Tyrannosaurus rex* to life—some 66 million years after its demise. One design illustrates a face-to-face encounter with a *T. rex* approaching through a forest clearing; another shows the same young adult *T. rex* with a young Triceratops—both dinosaurs shown in fossil form. The third and fourth stamps depict a newly hatched *T. rex* covered with downy feathers and a bare-skinned juvenile *T. rex* chasing a primitive mammal. The "Nation's *T. rex*," the young adult depicted on two of the stamps, was discovered on federal land in Montana and is one of the most studied and important specimens ever found. Its remains will soon be on display at the Smithsonian Institution's National Museum of Natural History in Washington, DC. Art director Greg Breeding designed the stamps with original artwork by Julius T. Csotonyi, a scientist and paleoartist."

2019.09.05: **Germany:** 250th anniversary of Alexander von Humboldt, the great German naturalist. Some collectors might consider this stamp as Charles Darwin made frequent reference to Humboldt's work in his *Voyage of the Beagle*, where Darwin described his own scientific exploration of the Americas.

2019.10.11: **Michel Stamp Catalog:** *Dinos – Whole World*, 1st edition. Stamps with prehistoric animals from all over the world. Planned for 5 March 2019, but delayed. Clear design and modern layout due to our innovative production process. Approximately 2,500 color illustrations and about 20,000 price quotations. New issues up to MICHEL *Rundschau 1/2019* have been catalogued in this edition. Pages: approx. 328. Format: Paperback. Language: German.

2019.10.20: **Netherlands:** Personalized stamp of *Mosasaurus hoffmanni*, will be issued in MS/10 for "Philatelic Day (*Filatelistendag*)" in Limburgse.

2019.xx.xx: **Portugal:** ATM stamps "Fossils Discovered in Portugal."

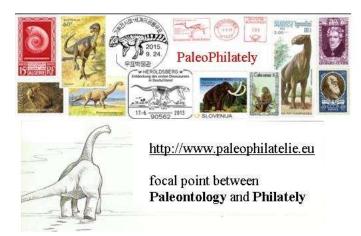
2019.xx.xx: **Ukraine:** Commemorative cover "100th anniversary of Zoological Museum in Kiev" (there are extensive Paleontology exhibits in the museum).

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.



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

 $\textbf{Catawiki}. \ Listings \ and \ illustrations \ of \ stamps \ for \ sale \ by \ topic \ for \ every \ theme \ from \ A \ to \ Z.$

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/

American Topical Association. Topical collecting and exhibiting information, youth activities, checklists. http://www.americantopicalassn.org/home.shtml

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

Exploring Stamps. Interesting and professional videos produced by videographer Graham Beck on all sorts of stamp collecting topics.

https://www.youtube.com/channel/UCkeSM6aOWfaUPIGb5rPOGyA

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 Institute. 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

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

Bug Guide. Identification, images, and information for insects, spiders, and their kin for the United States and Canada.

https://bugguide.net/node/view/15740

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

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

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

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

Entomology Today. Entomological Society of America site reporting interesting discoveries in insect science, entomological society news and events, and related articles.

https://entomologytoday.org/

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

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/

Society of the Study of Amphibians and Reptiles. Website devoted to herpetology research and conservation. Database of North American species names.

https://ssarherps.org/

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/

Burke Museum Ichthyology. Database of the museum's archival collection of more than 11 million specimens.

http://www.burkemuseum.org/research-and-collections/ichthyology

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://vertebrates.si.edu/mammals/index.html

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:

Br	Branch	Α	Subject is the primary design element
FI	Flowers (with or without other plant parts)	В	Subject is only part of the main design
Fr	Fruit (including seeds, nuts, grains, etc.)	С	Subject is a minor representation
FrV	Grain head with sheaf or stalk	G	Subject is a generalized depiction
L	Lichen	R	Related subject (e.g., scientist, equipment)
M	Mushroom or fungus	S	Subject is a stylized or symbolic depiction
T	Trees (without flowers or fruit)	U	Subject is unidentified or unidentifiable
V	Various (vines, vegetables, roots, leaves, etc.)	Χ	Subject is a lookalike (e.g., mushroom cloud)
Wr	Wreath	Z	Subject is in the Margin or selvage
Wr*	Head wreath (or chaplet)	*	Subject is natural color (no longer in use)

Acronyms and Abbreviations:

Acronyms and Abbreviations:										
	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						
	inscr	inscribed	unwmk	un-watermarked						
	Intl.	International	UPU	Universal Postal Union						
	L	left position indicator	UR	upper right position indicator						
	litho	lithography	US	United States						
	LL	lower left position indicator	USPOD	United States Post Office Department						
	LR	lower right position indicator	USPS	United States Postal Service						
	Mi#	Michel Catalog number	var.	variety						
	mm	millimeter	vert	vertical orientation						
	MS	miniature sheet	Vol	Volume						
	ML	middle left position indicator	wmk	watermarked						
	MR	middle right position indicator	WWF	World Wildlife Federation						
	N/A	not applicable (or not available)	Yv#	Yvert & Tellier Catalog number						
	nd	non-denominated	8	male symbol						
	NTSS	National Topical Stamp Show	2	female symbol						
	NWF	National Wildlife Federation	\$	poisonous/venomous symbol						

	ology Family Abbreviat		۸ ا- به : -ا	AND	A				
ACR	Acrididae	AES	Aeshnidae	AND	Andrenidae				
ANO	Anobiidae	ANT	Anthicidae	API	Apidae				
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	Cosmopterigidae				
CRA	Crabronidae	CRAM		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		•				
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