

UNITED NATIONS-NEW YORK 2009, April 16 (Endangered Fauna).

42c	<i>Parnassius apollo</i> L., APOLLO	PAP	Papilioninae
42c	<i>Rosalia alpina</i> L., ROSALIA LONGHORN	CER	Cerambycinae
42c	<i>Formica rufa</i> L., SOUTHERN WOOD ANT	FOR	Formicinae
42c	<i>Anax imperator</i> Leach, EMPEROR DRAGONFLY	AES	Aeshninae

UNITED NATIONS-VIENNA 2009, April 16 (Endangered Fauna).

65c	<i>Troides brookiana</i> Wallace, RAJAH BROOKE'S BIRDWING	PAP	Papilioninae
65c	<i>Pandinus imperator</i> Koch, EMPEROR SCORPION	Scorpionidae	Scorpioninae
65c	<i>Carabus intricatus</i> L., BLUE GROUND BEETLE	CAR	Carabinae
65c	<i>Brachypelma smithi</i> Picard-Cambridge, MEXICAN RED-KNEE TARANTULA	Theraphosidae	Theraphosinae

VANUATU 2009, January 28 (Romance in Vanuatu).

961-62	90v	Bride & groom, BUTTERFLY	Lepidoptera
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It is time for the annual report on insect new issues. In calendar 2008 we had a drastic drop in the number of new insect stamps. I measure the number of new issues by the height of the stack of 3x5 index cards, one per stamp, that I accumulate each year. (20mm = about 100 cards). Local and known illegal issues are not included.

1996	80mm = ~400 stamps	2002	122mm = ~610 stamps
1997	119mm = ~595 stamps	2003	91mm = ~455 stamps
1998	125mm = ~625 stamps	2004	54mm = ~270 stamps
1999	133mm = ~665 stamps	2005	68mm = ~340 stamps
2000	165mm = ~825 stamps	2006	63mm = ~315 stamps
2001	191mm = ~955 stamps	2007	62mm = ~310 stamps
	2008	37mm = ~185 stamps	

The Emerald Cockroach Wasp

This may be a strange name for a wasp but its life is even stranger. The wasp, *Ampulex compressa* Fabricius, is a shiny green member of the small wasp family Ampulicidae. The emerald cockroach wasp can be found on the following stamps:

- Malaysia, #441 and 441a, 1991, \$1
- St. Helena #366, 1982, 25p

The adult females of many wasps seek as food for their larvae an insect or spider to sting, paralyze and serve as a site for egg-laying. However, this wasp uses only cockroaches for its prey and does so in a unique method.(1) The wasp first stings the cockroach, aiming at a ganglion in the thorax. This temporarily paralyzes the roach for a few minutes, allowing the second sting to be carefully directed into the brain cells that control the escape reflex. This is accomplished by the use of sensitive detectors on the stinger. After the cockroach recovers from the first sting, it no longer can make any attempt to escape but can walk normally.

The wasp then bites off the thin distal end of one antenna, drinks from the hemolymph that leaks out and then uses the sturdy antenna stump as a leash to lead the cockroach to the wasp's burrow, as one would lead a dog on a leash. Here the wasp lays an egg on the cockroach and seals the burrow. This fascinating act can be seen in a video clip at

[youtube.com/watch?v=AkpHQh1K9MU](https://www.youtube.com/watch?v=AkpHQh1K9MU).

When the egg hatches, the larva chews its way into the body cavity of the roach. It then proceeds to devour the organs of the roach in a specific order so as to keep the roach alive for the eight days it takes for the larva to develop. The larva then forms a cocoon in the abdomen of the roach and emerges as a wasp a month later. (2,3)

Researchers at the University of North Carolina (4) have shown that the wasp venom blocks the action of the neurotransmitter octopamine which is involved in complex behaviors such as walking. By injecting the cockroach with a reactivator of octopamine in the central nervous system, they found they could restore normal activity in the cockroaches. Injection with an octopamine blocker produced the same effect as did the wasp sting.

1. www.en.wikipedia.org/w/index.php?title=ampulicidae&printable=yes
2. [ampulex compressa \(thing\)@everything2.com/node/1784588](mailto:ampulex_compressa(thing)@everything2.com)
3. www.boingboing.net/2006/02/03/wasp-performs-roachb.html
4. www.med.unc.edu/www/incoming-news/0db0a79554af26d5c069d69090559a8a

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