

The robber crab *Birgus latro* on Aride Island, Seychelles

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The robber crab *Birgus latro* (Linnaeus) is one of the largest terrestrial arthropods in the world. It has a circum-tropical distribution and is able to colonise even small, remote atolls through the dispersal of its immature pelagic stages in ocean currents. The species is edible and is regarded as a highly-prized food in some areas such as Vanuatu (*S. Maturin pers. comm.*), whilst it is also viewed as a 'robber' of coconuts, which it can remove from coconut crowns using its formidable pincers. As a result of over-harvesting and persecution, the species has become scarce in many areas, and is increasingly restricted to uninhabited and reserve islands.

Within Seychelles, robber crabs remain common on Aldabra and are still present on other coralline islands such as Cosmoledo (*J. Hetimier pers. comm.*). There has always been some doubt over the status of robber crabs in the granitic islands. The inclusion of the Seychelles in a general distribution list (Haig 1984) relies on a sole specimen in Paris (Reyne 1939), together with a report of young crabs on Mahé in 1971 (Taylor 1968). The Paris specimen is labelled 'Sechelle' without further supporting details and the Mahé record is not supported by specimens or photographs (*J. Gerlach pers. comm.*). The lack of reliable records from the granitic islands is surprising, and may possibly be connected to water temperatures over the marine plateau surrounding the islands. Records of immature robber crabs on Aride Island in the period 1997 to 1998 are therefore of great interest and are presented here:

1. 1997 (precise date not known) immature specimen observed in the Volunteers' House on the Plateau at night (*M. Betts pers. comm.*).
2. 28th April 1998 at 20:00hrs - 12cm long individual encountered near the top of the Lodge Path (altitude c.50m). Observers: J. Bowler, R. Fanchette, A. Labonte, S. Dahms.
3. 17th August 1998 at 21:00hrs - 15cm long individual encountered in the Volunteers' toilets on the Plateau. Observers: S. Johnson, R. Threadgold.
4. 22nd December 1998 at 22:00hrs - 12cm long individual encountered c.50m up the Lodge Path from the Lodge. Observers: G. Loe, S. Maturin, J. Bowler, A. Shaw, A. Upton, J. Hetimier, J. Pillay.
5. 11th January 1999 at 21:00hrs - 15cm long individual seen and video-taped at the La Cour Well on the Plateau. Observers: C. and A. Latimer.

In all cases, the crab observed was identified as a robber crab, on account of the following features:

1. very large, powerful front pincers of equal length
2. the second pair of legs were the longest
3. pronounced point on the forehead, above and between the eyes

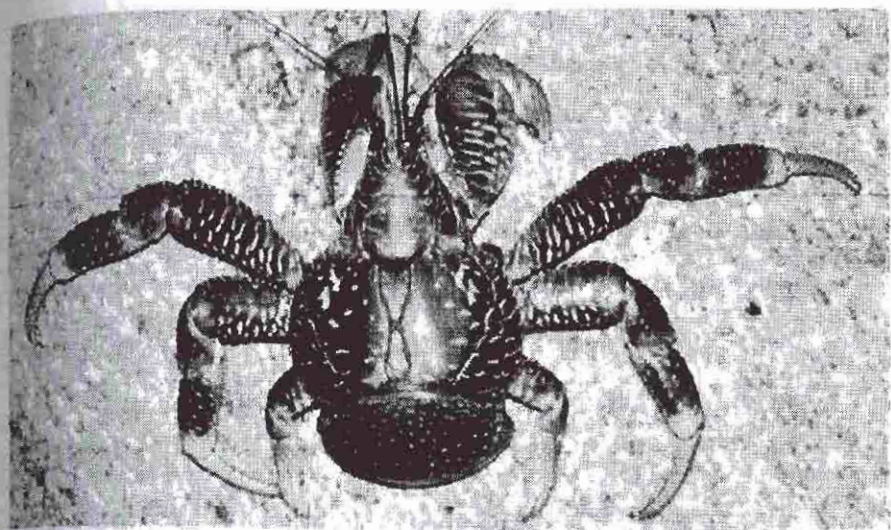


Fig. 1. Robber crab on Aride (photo: R. Shaw)

4. eye colour, blood red
5. broad body
6. broad straight abdomen tucked under body - not in an obvious spiral
7. colour - a rich purplish-brown, paler broken bands on upper sections of legs

Thus, there have been a total of 5 sightings of robber crabs on Aride since 1997. It is possible that sightings 1, 3 and 5 may refer to the same individual, and that sightings 2 and 4 may pertain to a second smaller individual, suggesting that the population of robber crabs on Aride is small. All sightings relate to immature crabs (adult males can measure 1 metre from leg-tip to leg-tip), whilst previous surveys of Aride's decapod crustacean fauna in November 1991 (Richardson 1991) and in July to November 1993 (Anderson 1994) failed to find the species, suggesting that Aride has only recently been colonised/recolonised.

Following the third sighting, attempts were made to lure more crabs at night with opened coconuts placed at various locations on the Plateau and hill, concentrating close to the locations of previous sightings. These attempts singularly failed to attract robber crabs, attracting instead very large number (up to 100 at each site) of the large and mainly nocturnal hermit crab *Coenobita brevimanus* Dana, 1852. Robber crabs prefer to feed alone, and presumably avoided the large numbers of hermit crabs attracted to the coconuts. Sighting 4 referred to a specimen encountered en route to a baited site on the hill. Further encounters with this species will be logged and individual crabs measured in order to gain a deeper understanding of the population.

References

- Anderson, C. 1994 - *Phelsuma* 2; 36-49
Haig, J. 1984 - In: Stoddart, D.R. (Ed.). *Biogeography and Ecology of the Seychelles Islands*. Dr.W. Junk, The Hague.
Reyne, A. 1939 - *Archs. néerl. Zool.* 3; 283-320
Richardson, I. 1991 - In: Castle, G. & Mileto, R. *Aride Island Scientific Report 1989-91*. Unpublished report, RSNC.
Taylor, J.D. 1968 - *Phil. Trans. R. Soc. Lond B* 254; 129-206.

NOTES

Keys to the Seychelles Fauna: 5. Chrysomelid leaf beetles

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The Seychelles Chrysomelidae (leaf beetles) are a relatively small but distinctive group of phytophagous beetles. There is little information on their distribution or host plants in Seychelles; *Bikasha minor* is abundant in lowland vegetation, especially *Ipomoea pes-caprae*, *Aspidomorpha apicalis* is known to feed on *Ipomoea batatas* (Maulik 1917) and *Longitarsus gardineri* was collected on *Tournefortia argentea* (Maulik 1931). *Neohispa lambacris* has been collected in *Phoenicophorium borsigianum* palm leaf bases and *Rhabdotohispa scotti* from the leaves of *P. borsigianum* and *Roscheria melanochaetes* (Maulik 1913)

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| 1. Flattened, rounded, head usually hidden | 2. (Cassidinae) |
| Not rounded, head distinct | 4. |
| 2. Round, head obscured | 3. |
| Angular, front margin serrated, green, elytra tip red | <i>Hoplionota lila</i> Maulik, 1917 |
| 3. Antennae longer than thorax | <i>Coptocycla leopardina</i> Bohemann, 1855 |
| Antennae projecting only slightly | <i>Aspidomorpha apicalis</i> (Klug, 1833) |
| 4. Elongate ($L > 3W$), short legs | 5. |
| Broad ($L < 3W$), legs often long | 6. |
| 5. Black, $L=4W$, 8mm | <i>Nesohispa lambaciras</i> Maulik, 1913 |
| Black, pale marks, ridged, $L=3W$, 3-4mm | <i>Rhabdotohispa scotti</i> Maulik, 1913 |



Hoplionota



Coptocycla



Aspidomorpha



Neohispa



Rhabdotohispa