Wasa Mata crossing (*c.* 350 m). Villagers from Kanikeh concurred; they were not found in the higher countryside towards their village (*c.* 850 m). Hunters from Solea indicated that they were found in the lowland forests around Kaloa and Hatuolo. The bird was referred to as 'clever' because they found it difficult to catch with local traps. It was therefore not actively hunted for food. It was recognised to be attractive, but only survived one or two weeks of captivity in the forest, in contrast to the longer survival times of lories (*Eos bornea, E. semilarvata*), lorikeets (*Trichoglossus haematodus*) and cockatoos (*Cacatua moluccensis*).

The survey demonstrated a wide recognition of the presence of the bird throughout the low central part of Seram north of the mountain ridges of Gunung Kobipoto and Gunung Binaiya. Contrary to what is implied in our earlier paper (Kitchener *et al.* 1993), we now think it probable that, like the Cassowary *Casuarius casuarius*, the bird was brought to the island by man (White 1975), although it is not clear from this survey how long ago this first occurred. However, the discovery of the existence of a name for the bird in (at least) one of the languages of the island may argue in favour of its presence on the island for a considerable period.

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The genera of owls in the Asioninae

by Storrs L. Olson

Received 11 March 1994

The cosmopolitan genus *Asio* Brisson, 1760, contains six or seven species, with greatest diversity in the Old World. Three nominal monotypic genera are closely associated with *Asio* and the four together have been regarded as constituting a subfamily Asioninae (e.g. Ford 1967). An additional character that unites all the asionine owls that was not mentioned by Ford is the very long, slender zygomatic process (Olson & James 1991—not ascertainable in *Nesasio*).

The other genera in question are: *Pseudoscops* Kaup, 1848, of Jamaica; *Rhinoptynx* Kaup, 1851, of the Neotropics; and *Nesasio* Peters, 1937, of the Solomon Islands. Some authors merge *Rhinoptynx* with *Asio* (e.g. A.O.U. 1983). Ford (1967) examined and described the cranial osteology of these owls reasonably accurately, although he had only X-radiographs of skin specimens for comparison of *Nesasio*. He suggested combining all asionine genera under *Asio*, but I believe that this is misleading and unnecessarily minimises the differences between *Asio* and *Pseudoscops/Rhinoptynx*.

The species of *Asio* have a very distinctive cranial morphology (*A. otus, A. flammeus,* and *A. capensis* examined) owing primarily to the large, semi-vertical, flattened surfaces of the cranium above and behind the orbits (Fig. 1C,D). In dorsal view this gives the skull a decidedly triangular appearance. The flattened areas terminate posteriorly in a lateral prominence over the auditory bulla that lies well posterior to the origin of the postorbital process, which descends from the anterior margin of the flattened surface. In *Pseudoscops* and *Rhinoptynx*, the flattened areas are much smaller, so that the lateral prominence is more anteriad, with the postorbital process descending directly from it (Fig. 1A,B). The skulls in dorsal view in consequence have a more rounded than triangular appearance.

The tympanic wing in *Asio* is enlarged relative to that in *Pseudoscops/Rhinoptynx*, so that in posterior view it appears more rounded, and in anterior view it extends much farther dorsally and laterally beyond the postorbital process. In lateral view the recess above the quadrate, between the postorbital process and the tympanic wing, is much wider and deeper in *Asio*.

There are minor differences between *Pseudoscops* and *Rhinoptynx*, mostly related to the smaller size of the flattened supraorbital surface, which makes the lateral prominence less expanded, so the skull appears narrower in *Pseudoscops*. Also, the supraorbital processes are smaller and blunter in *Pseudoscops*.

Nesasio solomonensis was originally described in the genus *Pseudoptynx*, which is now considered a synonym of *Bubo*. Peters (1937) showed that the structure of its external ear was not bubonine, for which reason he created the genus *Nesasio*, which he regarded as related to *Asio*. I was able to study a skull and limb bones removed from a skin of *Nesasio*. Unfortunately, the skull was heavily damaged during the original preparation of the skin, but it still preserves some diagnostic features.

Compared to a bubonine (*Ketupa ketupu*, Fig. 2), the skull is low and narrow, much more triangular, with the supraorbital flattened area present and well developed, giving the skull a triangular appearance. There is also a marked furrow between the cerebral hemispheres, such as may be developed in *Asio* and to a lesser extent in *Pseudoscops* and *Rhinoptynx*. The skull of *Nesasio* is thus clearly asionine and is more like that of *Asio* than are either *Pseudoscops* or *Rhinoptynx*. It differs from *Asio*, however, in having the postorbital process descending directly from the postorbital prominence, as in *Pseudoscops/Rhinoptynx*. Also, the recess above the quadrate does not appear to be as wide and

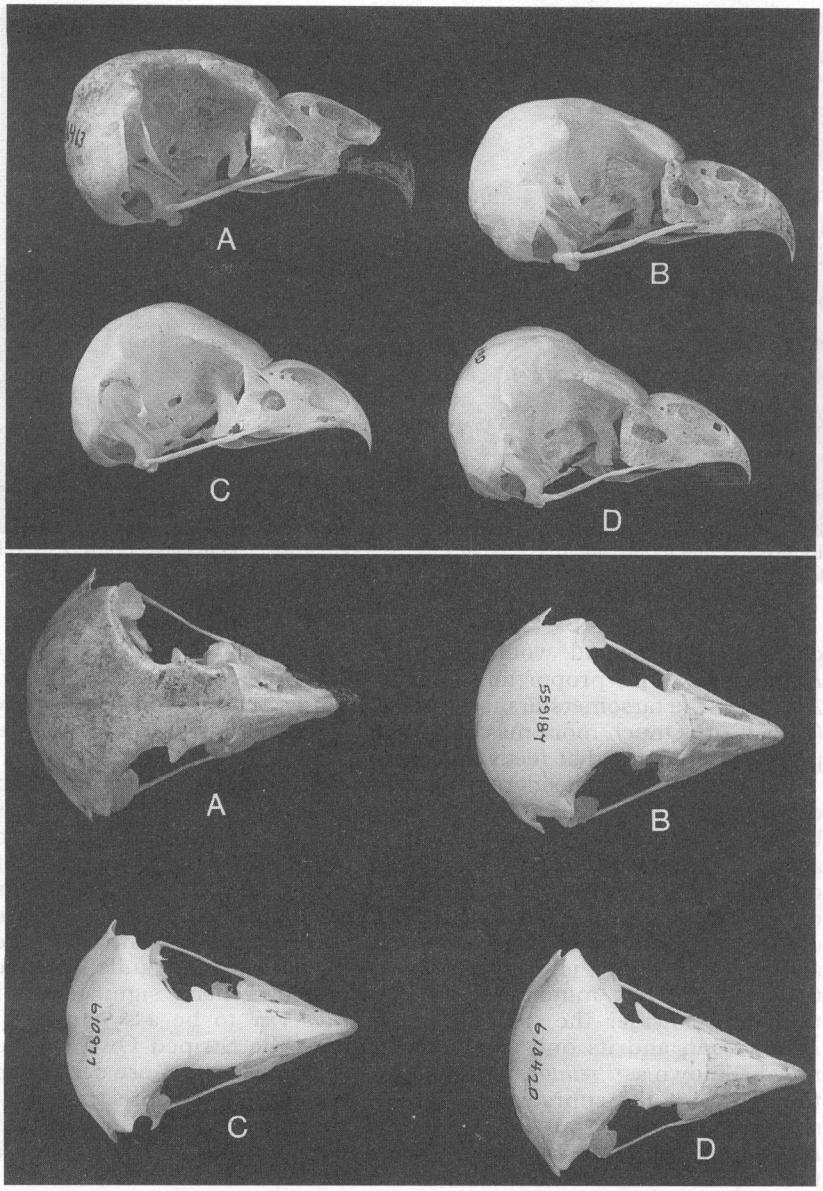

Figure 1. Lateral (above) and dorsal (below) view of skulls of asionine owls: A, *Rhinoptynx clamator* (LSU 86463), the beak still has the dark rhamphotheca adhering; B, *Pseudoscops grammicus* (USNM 559184); C, *Asio flammeus* (USNM 610977); D, *Asio otus* (USNM 610420).

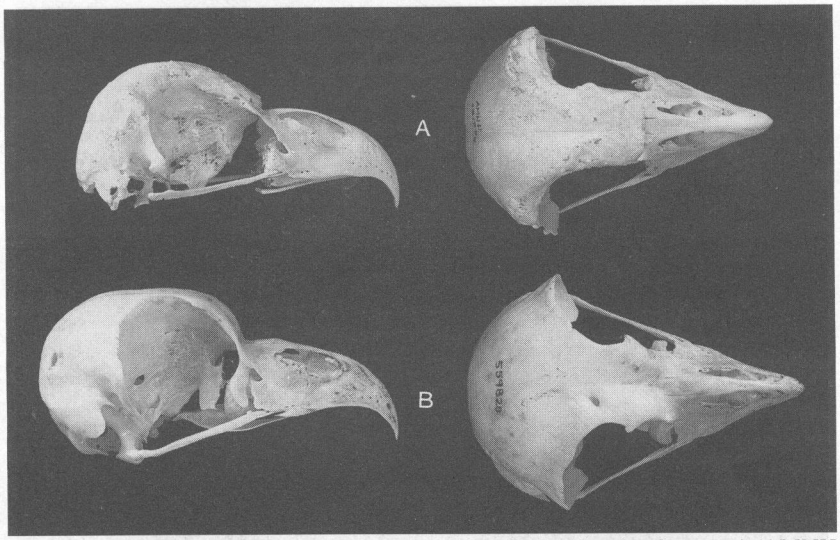

Figure 2. Lateral (left) and dorsal (right) views of skulls: A, *Nesasio solomonensis* (AMNH 631734); B, *Ketupa ketupu* (USNM 559828).

deep as in *Asio* and would again be more similar to *Pseudoscops*/*Rhinoptynx*. The proportions of the foot differ greatly in *Nesasio*. Although the tarsometatarsus is scarcely longer than that in *Rhinoptynx* (Fig. 3), it is much more massive, so that *Nesasio* must be a much more powerful predator that feeds on relatively larger prey.

Peters (1937:82) considered *Nesasio* to be "probably derived from an offshoot of *Asio flammeus* stock," whereas *Pseudoscops* he regarded as being "originally of *A. asio* stock." I do not think that this is an accurate reflection of the probable evolutionary history of this group of owls. By comparison with the remainder of the Strigidae, the characters of skull are most derived in *Asio*. *Pseudoscops* and *Rhinoptynx* are clearly more primitive than *Asio* and are much more similar to one another than either is to *Asio*. The differences in the skulls of these two are relatively minor and probably not of generic significance. I therefore consider the junior name *Rhinoptynx* to be a synonym of *Pseudoscops*, and its only contained species, the Striped Owl, should now be known as *Pseudoscops clamator*. *Nesasio* appears more derived in the extent of the supraorbital flattened surfaces and more triangular shape of the skull, but is less derived than *Asio* in this respect and retains the primitive characters mentioned above, as well as having a more specialized tarsal morphology.

Thus, rather than the insular forms *Pseudoscops grammicus* and *Nesasio solomonensis* being derived from *Asio*, these species, along with *P. clamator*, can be viewed more as primitive forms, perhaps relicts of an earlier asionine radiation that has otherwise been replaced by species of the more derived genus *Asio* in most parts of the world.

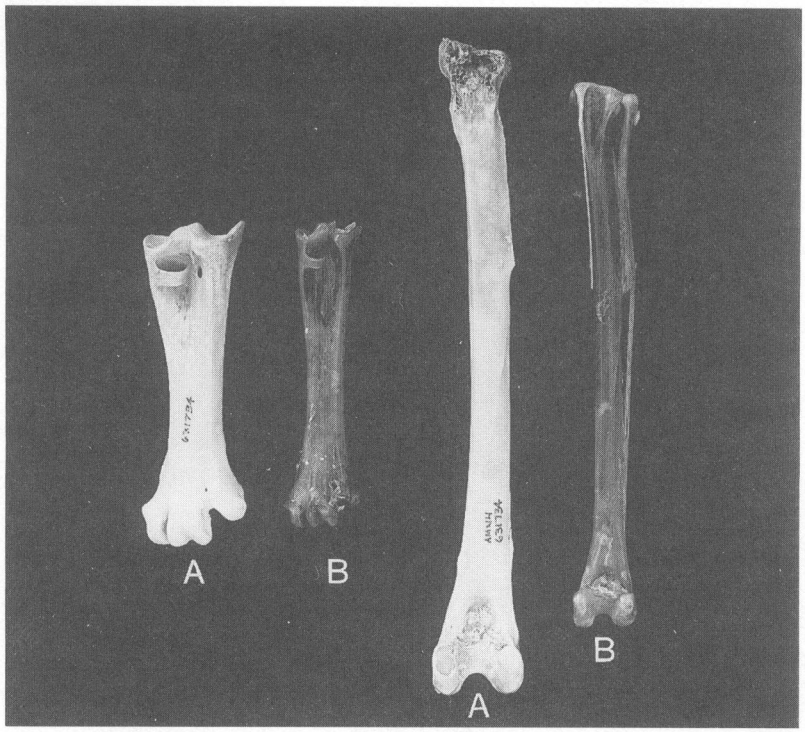

Figure 3. Anterior views of the tarsometatarsus (left) and tibiotarsus (right) of: A, *Nesasio solomonensis* (AMNH 631734); B, *Rhinoptynx clamator* (LSU 86463).

Acknowledgements

I thank George Barrowclough (American Museum of Natural History, New York) for permitting bones to be removed from a study skin of *Nesasio solomonensis*, and J. P. Angle and F. V. Grady for undertaking this task. J. V. Remsen (Louisiana State University Museum of Natural History, Baton Rouge) kindly lent a skeleton of *Rhinoptynx clamator*. Other comparative material was from the collections of the National Museum of Natural History, Smithsonian Institution. The photographs are by Victor E. Krantz.

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