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Range Extension for *Emydura subglobosa* in Papua New Guinea

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The red-bellied short-necked chelid turtle, *Emydura subglobosa* (Pleurodira: Chelidae), has a widespread distribution in the southern lowlands of the island of New Guinea, including Irian Jaya, Indonesia, and Papua New Guinea (distribution documented in Iverson, 1992), and is also found at the northern tip of the Cape York Peninsula in Queensland in Australia (Cogger, 1975). In Papua New Guinea it occurs throughout the southern lowlands from the Western Province at the Irian Jaya border in the west to the Port Moresby region in the Central Province in the east. The eastern range limit previously recorded (Iverson, 1992) is the Laloki River, Port Moresby. However, Podloucky (1984) records the purchase of specimens by Urban (*pers. comm.*) in a market 40 km [by road] east of Port Moresby, but gives no exact locality. His location extends the range of *Emydura subglobosa* slightly, into the upper Laloki River at about the village of Sogeri.

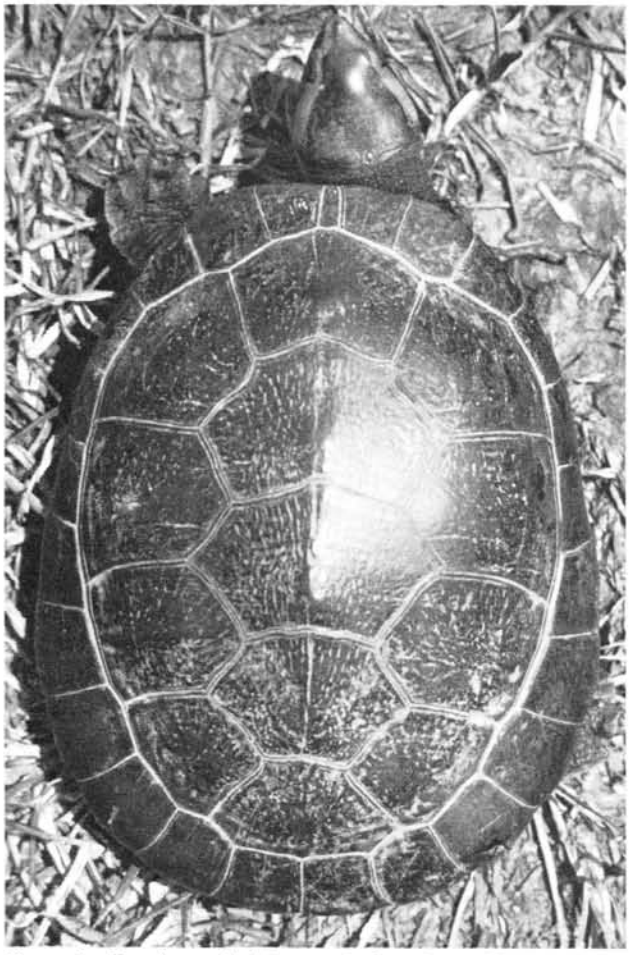

Figure 1. *Emydura subglobosa* male from Launa Kalana, Kemp Welch River (AMNH 133082). Photo by A.G.J. Rhodin.

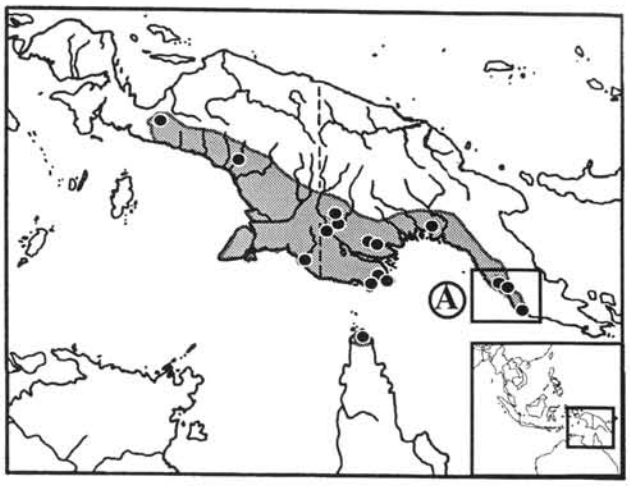

Figure 3. Distribution of *Emydura subglobosa*. See Fig. 4 for enlargement of area in rectangle A. Map modified from Iverson (1992).

While conducting field studies in Papua New Guinea in 1987, I visited the Kemp Welch River drainage basin ca. 90 km [by air] southeast of Port Moresby. Five specimens of *Emydura subglobosa* were obtained on 14 August 1987 by A.G.J. Rhodin, S.D. Rhodin, and R.G. Zweifel from villagers in Bore (09°53'S, 147°46'E) and Launa Kalana (09°57'S, 147°47'E), Kemp Welch River, Central Province. All were photographed (Chelonian Research Foundation, CRF photograph numbers 1248, 1255-8), and three were collected and deposited in the American Museum of Natural History (AMNH 133080-2) (see Figs. 1-2). The animals had been recently collected by natives from small local swamps and shallow lentic ponds near the river. Further collecting efforts in these ponds during the visit yielded no additional specimens. The turtles are known locally in Sinaugoro vernacular as *gaokori*, with no differentiation between the two species of freshwater turtles found in the region.

These specimens extend the known range of *Emydura subglobosa* in Papua New Guinea ca. 90 km southeast of the previous eastern limit, and ca. 75 km southeast of the locality mentioned by Podloucky (Figs. 3-4). The Kemp Welch

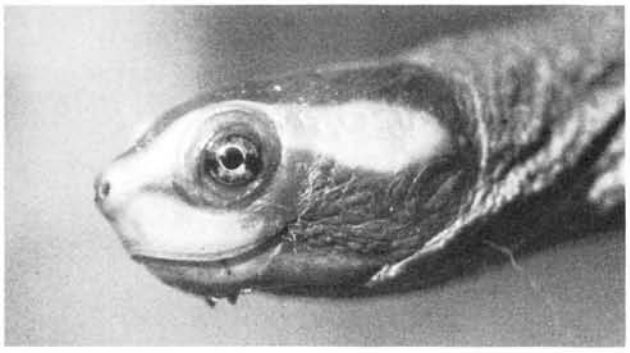

Figure 2. *Emydura subglobosa* sub-adult from Bore, Kemp Welch River (AMNH 133080). Photo by A.G.J. Rhodin.

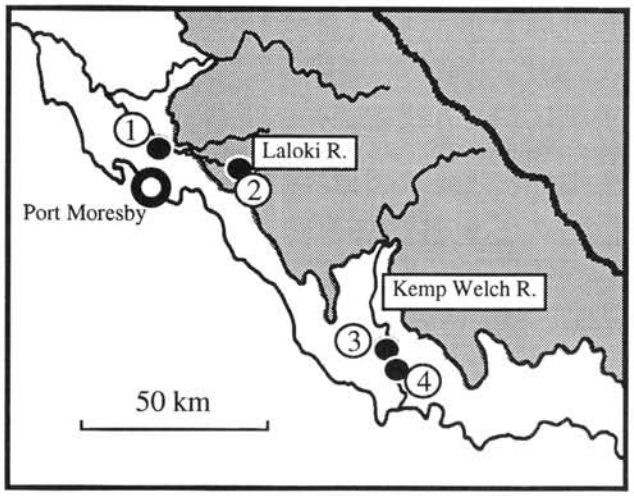

Figure 4. Enlargement of area A in Fig. 3, showing Port Moresby and Kemp Welch River area of southeastern Papua New Guinea. The shaded area represents elevation above 200 m., the heavy dotted line shows the watershed limit of the Owen Stanley Ranges. Localities: 1. Laloki River, Port Moresby; 2. Sogeri, Laloki River; 3. Bore, Kemp Welch River; 4. Launa Kalana, Kemp Welch River.

River basin is an area of relatively high rainfall and mesic lowland alluvial forests, and is separated from the Laloki River and the Port Moresby region by a relatively xeric area of low rainfall and savannah vegetation. The Kemp Welch River basin has recently been found to harbor an isolated new species of freshwater turtle, *Chelodina* sp., which is most closely related to *C. longicollis* of Australia (Rhodin, In press).

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A Ranching Project for Freshwater Turtles in Costa Rica

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In September, 1991, I had the opportunity to visit the Caño Negro Nature Reserve, located beside the Río Frio in northern Costa Rica, close to the Nicaraguan border. Río Frio is an affluent of Lake Nicaragua, and is the habitat of the newly described cooter subspecies *Pseudemys scripta emolli* Legler, 1990, now generally referred to the genus *Trachemys*.

The water was high, but in the course of the boat trip from Los Chiles to Caño Negro we saw a number of basking turtles - mostly large females. Within the Reserve itself there is a substantial human population, and a turtle ranching program devised by Jorge Cabrera of the Universidad Nacional, based upon the collection and artificial incubation of eggs from the wild. Thirty percent of the hatchlings are released, and the remainder sold in Costa Rican pet shops, where they are apparently more attractive and less expensive than the imported *Trachemys scripta elegans* traditionally sold. 310 nests were collected in 1991 (the first season of operation), containing an average of about 20 eggs (range: 12-33). They are collected within 24 hours of deposition (in part because they are hard to find later than this), and are reburied in soil in an enclosed area. In 1991, a hatching rate of about 80% was realized. These hatchlings were sold in San José.

The program has certain merits. It involves the local people, dependent upon park resources, in an aspect of wildlife management. They are paid for their egg-collecting services by receiving 50% of the funds generated by the sale of the turtles. Moreover, there is a real potential for displacing the importation of *T. s. elegans* - the attractively marked hatchling *T. s. emolli* are sold for only 70 colones (about 55 cents US) each. The ultimate fate of the tens of thousands of hatchling *T. s. elegans* imported into Costa Rica in recent years is undocumented, but the danger of release of at least some of them into natural *Trachemys* habitat would seem to be very real.

Until recently, the adult *T. s. emolli* in Caño Negro were subject to heavy seasonal hunting pressure from visiting Guatuso Indians, as documented by Mora and Ugalde (1991). However, it was reported to me that, with the advent of the ranching project, this has stopped. The adults continue to be predated by coatis and other mammals during their dry season (January to May) nesting excursions; the coatis overturn the turtles, then rip open the inguinal area to reach the eggs, and typically leave the carcass with head missing and femora and humeri bitten through. I saw five shells of adult females, the largest with straight carapace length of 36.5 cm – slightly smaller than Legler's (1990) largest specimen from Lake Nicaragua (37.2 cm).

The resident biologist in charge of the project is Vicente Meza Garcia (address: 400 m. norte del Hospital San Rafael, Alajuela, Costa Rica).

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