

**SIEBENROCKIELLA CRASSICOLLIS** (Black Marsh Turtle).

**FIRE SCARS.** Occurrence of fire scars on the shells of turtles is best described for the North American box turtle (*Terrapene carolina*) (Dodd et al. 1997. *Herpetol. Nat. Hist.* 5:66–72; Rose 1986. *Southwest. Nat.* 31:131–134; Smith 1958. *Turtlox News* 36:234–237). Scars often result from the turtle being exposed to fire while partially buried in terrestrial habitats with the mid-dorsal and posterior areas of the carapace burned most frequently. *Siebenrockiella crassicollis* has been described as a bottom-walking aquatic turtle that inhabits deep ponds, marshes, sluggish streams, and swamps (Ernst and Barbour 1989. *Turtles of the World*. Smithsonian Inst. Press, Washington, D.C.; Iskandar 2000. *Turtles and Crocodiles of Insular Southeast Asia and New Guinea*. PALMedia Citra, Bandung, Indonesia; Liat and Das 1999. *Turtles of Borneo and Peninsular Malaysia*. Nat. Hist. Publ. [Borneo], Sabah, Malaysia). It is known to walk on land, presumably during movements between aquatic habitats (Liat and Das, *op. cit.*). We report here on observations of fire scars in a sample of *S. crassicollis* that suggests heretofore unrecognized terrestrial activity.

A large sample of *S. crassicollis* was among the 7500 turtles putatively from Malaysia that were confiscated by Hong Kong authorities on 11 December 2001. Approximately 3200 of the 16 species of turtles were shipped to the United States in January 2002 for processing and distribution to rescue centers, zoos, veterinarians, and university research programs (Hudson and Buhlmann 2002. *Turtle and Tortoise Newslett.* 6:11–14). A total of 1002 *S. crassicollis* was received in three shipments (Ades and Crow 2002. *Turtle and Tortoise Newslett.* 6:2–7). All had apparently been harvested aquatically, as some had fish hooks in their mouths or necks. During the triage, marking, and measuring process we discovered that several of these turtles were scarred on the carapace in various configurations with varying amounts of the keratin apparently removed by fire. A total of 45 *S. crassicollis* had such scars (4.49% of the total sample). Eighteen were males (129–202 mm carapace length) and 27 were females (137–199 mm CL); all were adults. In the data set available, two (both females) had scars on > 50% of the carapace, 13 (5 males, 8 females) had scars on 21–50% of the shell, and 19 (8 males, 11 females) had one or more smaller areas burned away. Fourteen turtles (6 males, 8 females) were burned on the dorsum of the carapace, 4 on the left side (2 each), 6 on the right side (3 each), and 14 on the rear of the carapace (5 males, 9 females). None of the fire scars was fresh and all were healed, indicating that each turtle survived its burns. Our interpretation of these scars as being derived from fire damage is consistent with those seen in other species such as *Terrapene carolina* (e.g., Dodd et al. 1997, *op. cit.*).

The existence of extensive fire scars on the carapaces of these bottom dwelling aquatic turtles (Ernst and Barbour, *op. cit.*) suggests that some individuals spent time buried terrestrially in habitats consisting of leaf litter or dead grass, possibly during times of the year when local residents set fires to grasslands and the grass understory in open forests; such fires are set annually (often in the spring) in parts of Asia to help generate fresh vegetative regrowth (KAB and JCM, pers. obs.). Our observations suggest that populations of *S. crassicollis* may inhabit seasonally-ponded wetlands with fluctuating hydrologies, but the reasons for a

presumed terrestrial phase in the life history of *S. crassicollis* are not known. Investigation into this aspect of their behavior may reveal patterns of terrestrial habitat use heretofore unrecognized by chelonian biologists.

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