

Intergradation Between *Melanochelys trijuga trijuga* and *M. t. coronata* (Testudines: Emydidae: Batagurinae)

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The Indian Black Turtle or *pe amai*, *Melanochelys trijuga*, is one of the most abundant chelonians in the Indian subcontinent, with a distribution extending from Sri Lanka (Deraniyagala 1939), through India and Burma, to western Thailand (Wirot 1979), although apparently excluding Bangladesh (Das, 1989). Nevertheless, details of the distribution of the seven described subspecies remain obscure. The range maps provided by Smith (1931), Das (1985), and Tikader and Sharma (1985) indicate rather clearly allopatric distributions for the Indian subspecies, but the overall range of the species is based on extremely few and widely-separated locality points (except for Sri Lanka and Kerala), as is evident in the map provided by Iverson (1986). Deraniyagala (1939) recognized two subspecies in Sri Lanka, but the geographic separation, if any, between these two forms was not made clear.

Of the various subspecies, the most distinctive is probably *Melanochelys trijuga coronata*, whose distribution is restricted to the state of Kerala in southwestern India (the distribution map provided by Tikader and Sharma (1985) involves a transposition of the range of *coronata* and *trijuga*). *M. t. coronata* has a striking head pattern, with a broad, black diamond-shaped marking on the crown of the head, contrasting with the white to yellow temporal region. The head pattern of the other subspecies consists at most of small, yellow to pink spots and reticulations that may disappear with age. The shell as a whole is usually unrelieved black, in contrast to other subspecies in which at least a lighter plastral rim is evident (although Deraniyagala (1939)

reported completely black specimens of *M. t. trijuga* from Kalpitiya, Sri Lanka and we have seen increased pigmentation with age in the north Indian subspecies, *indopeninsularis*, in which adult animals may lose the lighter plastral rim). The distribution of *M. t. coronata* is generally indicated as widely separated from that of *M. t. trijuga* by the Western Ghats, but the southward penetration of the *forma typica* into the hiatus between these two subspecies is not represented on existing range maps, and the subspecific relationship between these two forms has been assumed rather than demonstrated. We here report upon four specimens that bridge the geographic map between *M. t. trijuga* and *M. t. coronata*, and three that show characters intergradient between them.

An adult male (CL 23.9 cm; CW 16.4 cm) was collected by the two authors from a dry stream bed in Chichli, Indira Gandhi (formerly Annamalai) Wildlife Sanctuary, Coimbatore District, Tamil Nadu, on March 27, 1989 (Fig. 1). The right anterior margin of the shell showed signs of an old injury, with several peripheral bones lost. The head pattern of the specimen included the diamond-shaped marking typical of *Melanochelys trijuga coronata*. The yellow head reticulations and the yellow plastral margin is suggestive of *M. t. trijuga*, and the size of the specimen is greater than that of any recorded specimen of *M. t. coronata* (maximum 17.5 cm (Smith 1931) or 18 cm (Tikader and Sharma 1985) of 20.8 cm (Das 1985)). The specimen was retained alive and housed at the Madras Crocodile Bank.