

Rana daemeli

Rebecca Lane, 2000 © 2001 James Cook University

Authority: Steindachner, 1868

Common Name: Wood Frog

Description (Menzies 1976; Tyler 1989; Cameron & Cogger 1992; Richards 1992; Barker *et al.* 1995): A large terrestrial and semi-aquatic frog with long, muscular limbs and an elongate body. The head is also elongate and triangular in appearance. The skin is olive to brown with irregular dark flecks and blotches. A dark stripe extends from the snout to the eye and continues as a broad band enclosing the eardrum. The band merges above the forelimb with a darker lateral zone. The lower arms and the hindlimbs have dark crossbars. The skin is smooth with tubercles scattered low on the body. A distinctive dorsolateral skin fold extends from the eye, above the dark stripe, around the eardrum to the groin. The ventral surface is usually white and heavily speckled with brown. A white stripe exists along the upper lip and a gland is present at the angle of the jaws. Fingers are unwebbed and toes are fully webbed. Males are 43-58mm, and females 58-81mm in length. Tadpoles have a maximum length of 60mm with long tails and narrow fins. The sides are black and undersurface grey. The back is gold and black with faint green suffusion along the midline. They are characterised by an emarginate oral disc and elongated papillae along the posterior margin of the disc. Male vocal sacs consist of 2 lobes, which inflate externally as separate pouches. Males call from perches over or in the water during the day or night. The mating call is a series of 7-8 notes and sounds like "qaaak-qak-qak...".

Similar species (Barker *et al.* 1995): The elongate body form of *R. daemeli* is also characteristic of several ground-dwelling *Litoria* species and the large *Litoria nasuta*. They share elongate skin folds, but only in *R. daemeli* is the principal fold continuous from the eye.

Range (Cameron & Cogger 1992): North-east Queensland including north and east Cape York Peninsula.

Ecology and behaviour (Cogger *et al.* 1983; Cameron & Cogger 1992; Richards 1992): Adult *R. daemeli* inhabit paperbark woodland, vine forest, gallery forest and open forests of lowland areas. They are restricted to habitats with deep, running, permanent freshwater. These nocturnal frogs are found sitting still on prominent perches above the water at night. During the day the frog shelters under leaf litter, fallen timber, or in the base of tussocky sedges, at the edge of the stream. Cameron & Cogger observed them leaping from their perches into the stream when disturbed, where they remained underwater. Overall the abundance of *R. daemeli*, in the Weipa region, is common. They were nearly always present but not in large numbers. Adult frogs are carnivorous and prey on arthropods and other frog species. Tadpoles of *R. daemeli* were collected by Richards in melaleuca swamps and temporary or permanent streams. They were found primarily among debris and algae in the deepest sections of these habitats.

Breeding biology (Menzies 1976; Cogger *et al.* 1983; Cameron & Cogger 1992; Richards 1992; Barker *et al.* 1995): Males were recorded calling in February, August and June each in a different year. Tadpoles and metamorphs have been collected during the months of March, May and September which indicates that the species has either an extended breeding season or an extended larval development period. Breeding occurs in swamps, ponds or reservoirs. Little detail is known about amplexus in *R. daemeli* but fertilisation is external with thousands of eggs laid in a large shapeless mass. The spawn is spread

across the surface of the water. The eggs are covered in a jelly capsule, which quickly disappears after the tadpoles hatch. The tadpole undergoes direct development and is free-living.

Literature cited:

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