

# *Litoria lesueuri*

Doug Woodhams, 2000 © 2001 James Cook University

Authority: Duméril and Bibron, 1841

**Common Name:** Stony Creek Frog, Leseur's Frog

**Description** (Moore 1961; Martin *et al.* 1966; Hero and Fickling 1994; Barker *et al.* 1995; Cogger 2000): *Litoria lesueuri* may vary in colour from bright yellow (in breeding males) to dark or olive-brown, sometimes with irregular small dark blotches on a smooth or slightly roughened dorsal surface. The ventral surface is white and faintly granular. The posterior surface of the thigh is black with bluish white or yellow markings. Black markings may be present on the yellow groin except in some juveniles where the thighs and groin have a bright green or blue-green coloration. The throat is smooth, white in females, mottled brown around the edges in breeding males. Nuptial pads of breeding males are brown patches on the first finger. From the snout, dark, narrow stripes extend through the eye, above the darkly coloured and pale-rimmed tympanum, broadening to the shoulder where they are bordered by pale brown above along the prominent shoulder folds. The stripes stop at the shoulders, breaking into dark spots that may extend along the flank. No dorso-lateral skin fold is present. Dark bands may be present across the anterior of the wrists. The edges of the jaws sometimes have dark markings with white spots. The iris is golden along the upper half, and silver below. Long legs, broad head, short pointed snout, webbed toes and free un-webbed fingers terminating in small discs shape this species. Small central- and moderate inner-metatarsal tubercles are present. Tubercles are also well developed on the palm. Vomerine teeth occur between the chonae. The name *Litoria lesueuri* may contain more than one species; populations of larger-sized individuals with unique breeding biology exist in North-eastern Queensland. The largest *L. lesueuri* recorded reached 70mm. On average, males are between 37–43mm, and females between 55-63mm. Breeding males lack a vocal sac, but produce a soft low trill repeated for two or three seconds as a mating call. They usually call from rocks near flowing water during the night and sometimes during the day from August to May.

**Similar species** (Martin *et al.* 1966; Barker *et al.* 1995; Antis *et al.* 1998): *Litoria lesueuri* can be distinguished from other species by its distinctive size, shape, head-stripe, and colour of the thigh. *L. ewingi* and *L. verreauxi* may be similar in appearance except for these characteristics and the broader head and longer legs of *L. lesueuri*. A few species of stream breeding frogs have tadpoles that share lotic habitats. These may be distinguished based on body proportions and mouthpart arrangement. Larval *L. lesueuri* have two rows of upper and three rows of lower undivided labial teeth.

**Range** (Moore 1961; Barker *et al.* 1995; Antis *et al.* 1998; Cogger, 2000): From north-eastern Queensland to southern Victoria.

**Ecology and behaviour** (Moore 1961; Barker *et al.* 1995; Antis *et al.* 1998; Cogger, 2000): *Litoria lesueuri* inhabit a variety of terrestrial habitats including forested ridges, dry sclerophyll, coastal heathlands, and rainforests. Active primarily at night, but also during the day, *L. lesueuri* are often associated with rocky streams, but may be found long distances from water. Adults are often found on rocks along the edges of flowing water and when disturbed, may jump away quickly, often toward water, excreting copious amounts of urine. Tadpoles are found on the substrate in shallow and slowly flowing sections of streams and rivers, or stagnant pools. They shelter under leaves and rocks when disturbed.

**Breeding biology** (Moore 1961; Martin *et al.* 1966; Richards and Alford 1992; Richards 1993; Hero and Fickling 1994; Barker *et al.* 1995; Hero and Fickling 1996; Antis *et al.* 1998; Cogger, 2000; Tim Trudgen pers. comm.): Breeding occurs from August to May with males calling from stream-side positions. Females choose an oviposition site on the bottom of a slow-flowing stream or river, backwater or stream-side pool. Approximately 1600 to 2400 pigmented eggs with a mean diameter of 1.5mm are deposited. Egg masses loosely adhere to rock, bottom sediment, or vegetation substrates. Some females from populations in north-eastern Queensland construct shallow underwater basins along sandy banks adjacent to streams in which to deposit the gelatinous egg masses. These “nests” may have a role in protecting the eggs from predators, or securing the egg mass to the sandy substrate.

#### **Literature cited:**

- Antis, M., R. A. Alford, G. R. Gillespie. 1998. Breeding Biology of *Litoria booroolongensis* (Moore, 1961), and *Litoria lesueuri* (Duméril and Bibron, 1841) (Anura: Hylidae) and Comments on Population Declines of *L. Booroolongensis*. *Transactions of the Royal Society of South Australia* 122(1):33-43.
- Barker, J., G. Grigg, and M. Tyler. 1995. *A Field Guide To Australian Frogs*. Surrey Beatty and Sons, Chipping Norton, NSW.
- Cogger, H. G. 2000. *Reptiles and Amphibians of Australia*. 6<sup>th</sup> edition. Reed New Holland, Sydney, NSW.
- Duméril, A. M. C., and G. Bibron. 1841. *Erpétologie generate ou histoire naturelle complete des reptiles*. Paris, Roret, vol. 8, ii (cited in Moore, 1961).
- Hero, J-M, and S. Fickling. 1994. *A guide to Stream-Dwelling Frogs of the Wet Tropics Rainforests*. James Cook University, Townsville, QLD.
- Hero, J-M, and S. Fickling. 1996. Reproductive characteristics of Female Frogs From Mesic Habitats in Queensland. *Memoirs of the Queensland Museum* 39(2):306.
- Martin, A. A., M. J. Littlejohn, and P. A. Rawlinson. 1966. A Key to the Anuran Eggs of the Melbourne Area, and an Addition to the Anuran Fauna. *Vict. Nat.* 83:312-315.
- Moore, J.A. 1961. The Frogs of Eastern New South Wales. *Bulletin of the American Museum of Natural History* 121(3).
- Richards, S. J., and R. A. Alford. 1992. Nest Construction by an Australian Rainforest Frog of the *Litoria lesueuri* Complex (Anura: Hylidae). *Copeia* 1992(4):1120-1123.
- Richards, S. J. 1993. Functional Significance of Nest Construction by an Australian Rainforest Frog: A Preliminary Analysis. *Memoirs of the Queensland Museum* 34(1):89-93.