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D V, 28-30 A III, 28-32 P₁ 14-18 P₂ I, 5 C 17 V 24

Distribution Endemic to temperate eastern Australia from Bargara, (Qld 24°49'S) to Montague Is. (NSW 36°15'S). Occur in schools on inshore rocky reefs from depths of 10 to 30 m. Adults are characterised by a deep rhomboid shaped silver body that is yellow dorsally with a dark bar from the nape to pectoral-fin base and with yellow dorsal, caudal and anal fins. Maximum size 20 cm. (Hutchins & Swainston 1986, Kuiter 1993).

Diagnostic characters

- 9–12 + 12–16 = 24–25 myomeres
- Dorsal-fin count V, 28–30
- Long dorsal and anal fin-bases
- Pelvic fins absent until 6.3 mm when buds form
- Series of 3–5 small melanophores ventrally along tail in flexion and postflexion larvae

Description of larvae

Morphology Body moderate in preflexion larvae (BD 31–35%), becoming slightly deeper in flexion and postflexion larvae (BD 34–39%). Head is moderate to large (HL 33–39%). Body depth is approximately equal to head length. Teeth are present in the smallest specimen (2.6 mm). The nasal pit begins to roof over at 7.1 mm. One anterior and 2 posterior preopercular spines by 2.6 mm, 5 inner and up to 6 outer preopercular spines by late postflexion (7.1 mm); these small spines increase in number with growth and number may differ between sides. A supraocular ridge, supracleithral spine and a weak interopercular spine form in flexion larvae and a posttemporal spine in early postflexion larvae. First soft ray of anal fin transforms into a spine after 7.1mm. Gut long in preflexion and flexion larvae (PAL 50–57%), becoming moderate in postflexion larvae (PAL 43–53%). Gut is coiled and is a broad triangular shape. Gas bladder is small and may be inconspicuous.

Size at

Hatching	<2.6 mm
Notochord flexion	4.0–5.0 mm
Settlement	~14.9 mm
Formation of fins:	
Caudal	3.6–4.7 mm; Dorsal 3.6–7.1 mm; Anal 3.6–7.1 mm; Pectoral 4.2–7.1 mm; Pelvic 6.3–>7.1 mm

Pigmentation Larvae are moderately pigmented, with the pigment occurring as contracted or expanded melanophores. *External:* 1 melanophore at angle of lower jaw, 0–4 melanophores over midbrain in postflexion larvae (number may differ on right side). One to 3 melanophores on the nape in preflexion larvae, reducing to 0–1 in flexion and postflexion larvae. One or 2 melanophores in the posttemporal region, 0–2 melanophores on operculum in flexion larvae; 1 melanophore ventrally on isthmus. One to 5 melanophores clustered above gas bladder. In the smallest specimens, gut pigment occurs ventrally as contracted melanophores; from 3.6 mm, this pigment expands ventrally to the middle of the gut and dorsally to eventually become a border on the anterior margin of the gut that merges with the pigment covering the gas bladder. A discontinuous series of melanophores on the ventral midline of the tail in preflexion and flexion larvae becomes 3–5 defined melanophores by postflexion; this series is primarily external, but may be partially internal. Zero or 1 melanophore under notochord tip in preflexion larvae, remains on the ventral bases of the caudal fin in postflexion larvae (2 melanophores present by 7.1 mm). In settled juveniles, pigment covers nearly all the head and trunk with peppered punctate and stellate melanophores. There is also a series of melanophores along the dorsal and anal-fin bases and mid-laterally on the tail.

Internal: Melanophores are present below the hindbrain and the nape, over the gas bladder and on the posterior margin of the hindgut. From flexion external and internal gas bladder and hindgut pigment merges to form a dark shield of pigment over the dorsal and posterior portions of the gut.

Figure – Larvae of *Schuettea scalaripinnis*. **A** Preflexion (I.42638-001); **B** Preflexion (I. 36440-026); **C** Postflexion (I.41251-001); **D** Postflexion (I.43228-001). Specimens A and C from off Port Stephens, NSW and B and D from off Sydney, NSW. Illustrations by T Trnski.

Material Examined

The description is based on detailed examination of 19 larvae (2.6–7.1 mm), 1 juvenile (14.9 mm) and superficial examination of more than 200 specimens from off Ballina, NSW (28°52.55'S) to Marley Beach, NSW (34°08'S). AMS I.41251-001, I.42640-001, I.35524-004, I.34772-004, I.33922-020, I.33968-018, I.37413-031, I.41201-001, I.42638-001, I.43228-001, I.43229-001, I.36436-045, I.36440-026, I.35518-006, I.41266-037

Identification justification

Two species of Mondactylids, *Monodactylus argenteus* and *Schuettea scalaripinnis*, have NSW distributions (Hoese et al. *in press*). The larvae and juveniles described here were confirmed as being *S. scalaripinnis* due to their unique meristic values of D V, 28–30, absence of early forming pelvic fins and absence of heavy pigment covering the body from

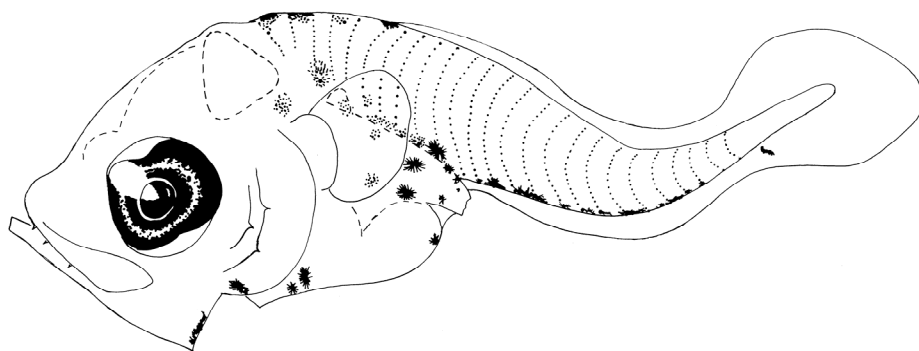
snout to anus. The development of pigmentation, in particular the ventral series of melanophores, the consistent ratio of HL equalling BD and the short coiled gut lead to the positive identification of the series of larvae from 2.6–7.1 mm.

References

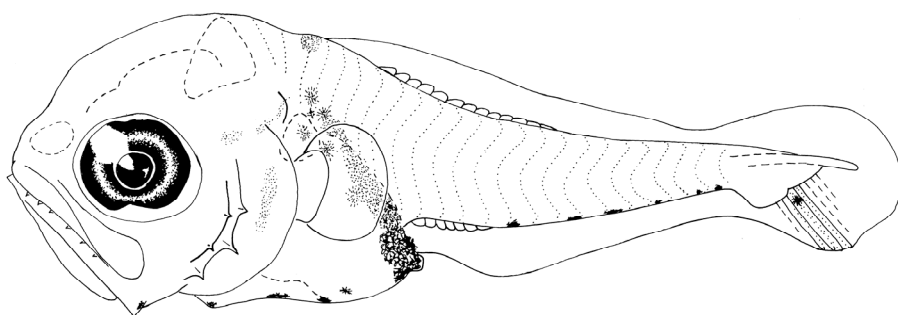
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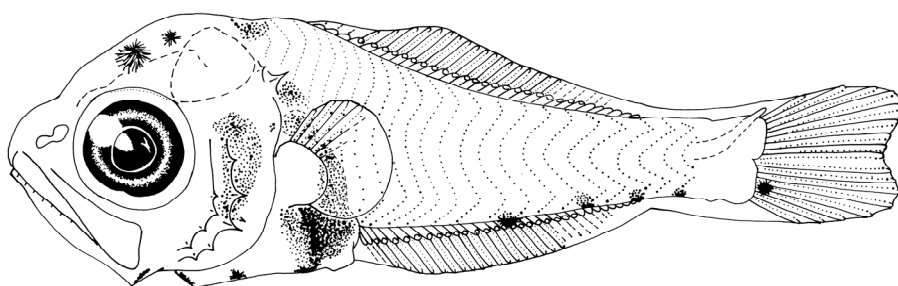
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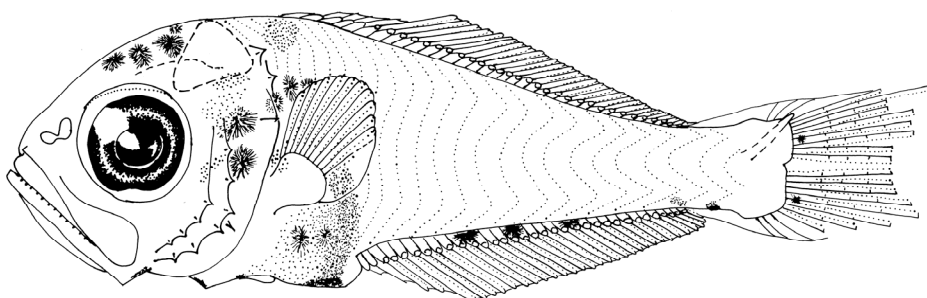
A 2.6 mm



B 4.0 mm



C 5.1 mm



D 7.1 mm