

Sex Reversal Pattern of Wrasse in Jeju Coastal Waters

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Eleven wrasse species inhabit the coastal waters of Jeju Island, Korea. They are the target of leisure fishing and are considered good eating. We investigated the distribution of standard length (SL) by sex of wrasse in Jeju coastal waters for *Halichores poecilopecterus*, *H. tenuispinis*, *Pseudolabrus japonicus*, and *Pteragogus flagellifera*.

A cross-section of the ovary showed the ovarian cavity and ovarian lamellae containing oocytes. A cross-section of the testis showed many lobules containing spermatogonia and spermatocytes. A cross-section of a gonad undergoing sex reversal showed the regression or reduction of oocytes and some spermatocytes located in the ovarian lamellae. A cross-section of a sex-reversed testis showed the primary structure of the ovary, with spermatocytes distributed in the epithelium of the lamellae, and reformed seminiferous ducts in the basement lamellae.

In *H. poecilopecterus*, the SL of females, primary males, sex-reversing individuals, and secondary males ranged from 13.0 to 17.0 cm. Similarly, in *H. tenuispinis*, the sizes of primary males, sex-reversing individuals, and secondary males were within the range of SL for females. In *P. japonicus*, females, primary males, sex-reversing individuals, and secondary males (terminal phase male) were found, and most secondary males exceeded 14.5 cm SL. In *P. flagellifera*, no primary males were found, and females ranged from 8.0 to 13.0 cm SL, while terminal phase males exceeded 13.0 cm (Figure. 1).

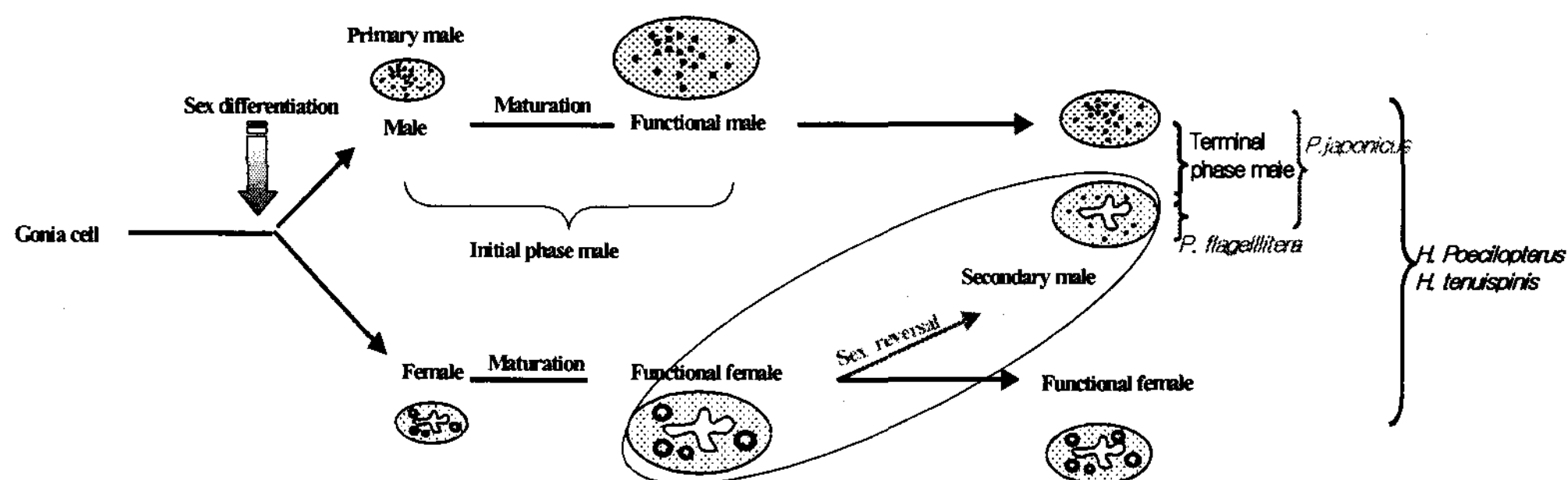


Fig. 1. Life history of the protogynous wrasse.

Key words) Wrasse, Jeju Island, Gonad, Sex reversal