

Voracious feeding on the sperm of sea anemone *Stichodactyla haddoni* by symbiotic anemonefish *Amphiprion clarkii*

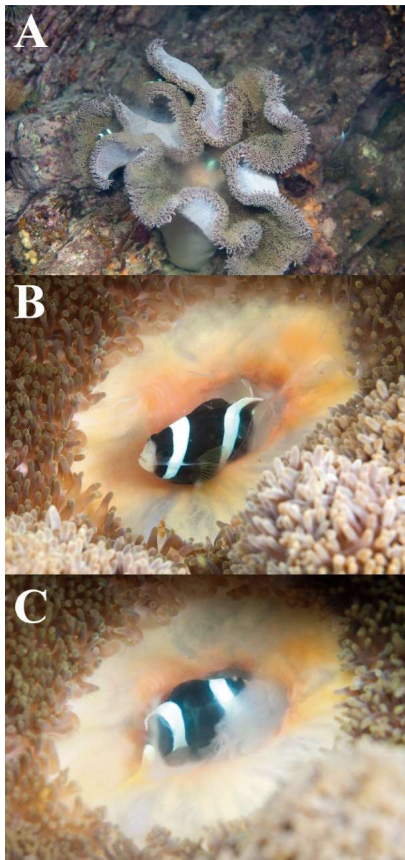


Figure 1. In situ photograph of sea anemone *Stichodactyla haddoni* (A) and anemone fish *Amphiprion clarkii*. Voracious feeding on the sperm (B, C).

Feeding on eggs by anemonefish *Amphiprion clarkii* (Bennett, 1830) in East Timor has been documented, it is rare to find them feeding on the sperms (Scott and Francisco 2006). Here we report a phenomenon, during a spawning event in a coral community in Otsuki, Kochi, Japan, of voracious feeding on the sperm released by the sea anemone *Stichodactyla haddoni* (Saville-Kent, 1893) (Fig. 1A) by anemonefish *A. clarkii* (Fig. 1B). This anemonefish is a common species in this area and forms symbiotic relationship with at least two other anemone species: *Entacmaea quadricolor* (Leuckart in Rüppell & Leuckart, 1828) and *Heteractis aurora* (Quoy & Gaimard, 1833).

Stichodactyla haddoni spawns generally during the summer (July to August) (Scott and Harrison 2007) coinciding with the spawning of anemonefishes (Richardson et al. 1997). The first observation of feeding on the gametes of *S. haddoni* by *A. clarkii* was made in 2009 and subsequently every year (2009–2013), with a total of six observations. Almost every time, *A. clarkii* fed on the eggs released by *S. haddoni*; however, during two observations, we found *A. clarkii* feeding also on the sperm. During sperm release, the fish was observed to almost enter the mouth of *S. haddoni* and voraciously feed on the released sperm (Fig. 1C). The size range of fishes (sex not identified) feeding on the sperm were approximately between 35 mm to 40 mm (standard length). These observations demonstrate occasional negative symbiosis between the sea anemone and the anemonefish.

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References

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