Clownfishes *Amphiprion clarkii* and *A. sandaracinos* (Pomacentridae) coexist in the sea anemone *Stichodactyla mertensii*

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Fig. 1 *Amphiprion clarkii* and *A. sandaracinos* (*blue arrow*) share the sea anemone *Stichodactyla mertensii* without being aggressive towards one another

Clownfishes (Pomacentridae) are obligate symbionts of sea anemones and usually do not share hosts due to their highly territorial behaviour. Therefore, coexistence of two clownfish species within one host anemone has been considered a rare exception (Fautin 1991) and possible only if fish species divide the host in exclusive territories without sharing space (Fautin and Allen 1992). Coexisting clownfishes, however, always behave aggressively towards one another (Elliott and Mariscal 2001). For example, *Amphiprion clarkii* (Bennett, 1830) and *A. perideraion* Bleeker, 1855 coexisted in the anemone *Heteractis crispa* (Hemprich and Ehrenberg, 1834), where, with intervals of several minutes, *A. clarkii* was aggressive towards *A. perideraion* (Hattori 2002).

Between July and October 2010, I observed sea anemones occupied by more than one species of clownfish in the Davao Gulf (the Philippines). A specimen of the sea anemone *Stichodactyla mertensii* Brandt, 1835 (diameter 32 cm at 1 m below mean low water) was inhabited by a pair of *A. clarkii* and three individuals of *A. sandaracinos* Allen 1972 (Fig. 1). Both *A. clarkii* specimens had a total length of 10 cm and those of *A. sandaracinos* 4, 6 and 7 cm. During 2- to 3-h observation on four occasions, *A. clarkii* was aggressive towards all fish approaching the anemone, but never towards the *A. sandaracinos* specimens. Both clownfish species shared their host neither by dividing it into exclusive territories nor by behaving aggressively towards each other. *A. sandaracinos* is highly host-selective and only inhabits *S. mertensii* and *H. crispa*, whereas *A. clarkii* is much less selective and inhabits ten anemone species (Fautin and Allen 1992). During the observation period however, specimens did not move to nearby uninhabited anemones (*H. crispa*), but preferred to coexist in one host. This is the first observation of host sharing among *A. clarkii* and *A. sandaracinos* in the sea anemone *Stichodactyla mertensii*.

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A. R. Bos (✉)
Research Office, Davao del Norte State College, New Visayas, 8105 Panabo, The Philippines
e-mail: arthurrbos@yahoo.com

A. R. Bos
Netherlands Center for Biodiversity Naturalis, P.O. Box 9517, 2300 RA Leiden, The Netherlands

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