Fig. 1 Colony of *Acropora cervicornis* off Fort Lauderdale, Florida, releasing egg-sperm bundles on the night of 6 August 2001

Sexual reproduction of Acropora cervicornis *in nearshore waters off Fort Lauderdale, Florida, USA*

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On the night of 6 August 2001, the second night after the full moon, mass spawning of *Acropora cervicornis* (staghorn coral) was observed in shallow, nearshore waters off Fort Lauderdale (Fig.1). Release of egg–sperm bundles occurred between 2315 and 2330 h, with a high proportion of colonies spawning (~70–80%). This is the first time researchers have documented the reproductive activity of staghorn corals in Fort Lauderdale waters, and according to spawning reports from other reef sites in the Caribbean and the Florida Keys, the quantity of gametes released was among the highest observed for the August spawning event.

The recent population decline of *A. cervicornis* in areas of the Caribbean (Florida Keys, Belize, Bahamas, and Jamaica) has been extensive. Sources of staghorn coral mortality include hurricanes, thermal stress, invertebrate predation, diseases, and anthropogenic impacts. Recent studies suggest that the current large-scale population reductions of this species witnessed Caribbean-wide have no recent geologic correlate (at least 3,800years; Aronson and Precht 1997). Increasing concern has lead the National Marine Fisheries Service (NMFS) to designate *A. cervicornis* as a candidate for threatened species status under the Endangered Species Act (Diaz-Soltero 1999).

Notwithstanding the Caribbean-wide mortality of *A. cervicornis*, significant populations of this species have been reported in shallow (4–6m), nearshore waters off Fort Lauderdale (Thomas et al. 2000). These appear to thrive in a high-latitude habitat, adjacent to a major urban area and port facility and subject to attendant anthropogenic impacts. In some locations, preliminary estimates of mean coral cover range between 7 and 20%, with *A. cervicornis* accounting for 95–100% of all scleractinians. Monospecific thickets of *A. cervicornis* cover areas as large as ca. 20–50m^2, significantly increasing the benthic topographic complexity. Evidence of predation by invertebrate corallivores is noticeable, namely the fire worm *Hermodice carunculata* and the gastropods *Coralliophila abbreviata* and *C. caribaea*. Conversely, no incidence of white-band disease or bleaching has been detected to date.

In light of the catastrophic demise of *A. cervicornis* throughout the Caribbean, the flourishing populations off Fort Lauderdale are perhaps both the largest and the northernmost aggregation of *A. cervicornis* in the continental USA, and represent a potential source of propagules to repopulate/replenish other previously impacted south Florida coral reef habitats.

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