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Jennison, Brian L. Gametogenesis in the Sea Anemone Anthopleura elegantissima. American Zoologist, 17(4), 335 (abstract) (1977).

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GAMETOGENESIS IN THE SEA ANEMONE  
ANTHOPLEURA ELEGANTISSIMA  
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Gametogenesis in the sea anemone Anthopleura elegantissima was studied for three years at four sites in central California. Histological analysis showed that oögonia arise in the mesenteries of females in the fall, and are present throughout the year, showing a peak at the onset of gametogenesis and a decline before spawning. Oocytes grow in the mesoglea through the winter and spring and are spawned in the late summer during periods of warmest temperatures. They do not undergo final maturation divisions until after spawning. Spermatogonia arise in the endoderm of the male mesenteries, migrate into the mesoglea, and undergo mitotic divisions. Spermatoocytes are differentiated towards the center of the vesicular lumina, where tailed sperm develop. Although spermatogenesis may take less than a month, mature sperm may be maintained for more than four months before spawning. (Supported by Sea Grant R/E-10, #04-6-158-44021, awarded to Drs. Cadet Hand and R. I. Smith).