

**Gymnodinium catenatum** H.W.Graham

*Trans. Amer. Microscop. Soc.* 62: 259, figs 1, 2 (1943)

*Type locality:* U.S.A. (California)

*Australian distribution:* N.S.W., Vic., Tas. (E and S coasts, from Georges Bay to Port Davey), S.A.

*Extra-Australian distribution:* Argentina, Uruguay, Brazil, Venezuela, U.S.A. (Washington, California), Spain, Portugal, Mediterranean Sea, Black Sea, Arabian Sea, Bay of Bengal, Malaysia, Philippines, Singapore, South Korea, Japan, western Pacific Ocean, New Zealand, Mexico (Pacific coast)

*Note:* Sediment cyst evidence suggests *G. catenatum* was introduced into Tasmanian waters in c. 1973 and began to cause blooms in the Huon River, d'Entrecasteaux Channel and River Derwent after 1980, the most serious in 1993. This species was first seen off Lorne (Vic.) in 1993, at Port Lincoln (S.A.) in 1996, and in the Hawkesbury (1997) and off Bega (N.S.W.) in 2002 [Hallegraeff *et al.*, 2010]

*References:* G.M.Hallegraeff, D.A.Steffensen & R.Wetherbee, Three estuarine Australian dinoflagellates that can produce paralytic shellfish toxins, *J. Plankton Res.* 10: 531–541 (1998)

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