

Ceratium tenue Ostenf. & J.Schmidt

Vidensk. Meddel. Dansk Naturhist. Foren. Kjøbenhavn 1901: 166, fig. 18 (1901)

Ceratium buceros f. *tenue* (Ostenf. & J.Schmidt) Böhm, in J.Schiller, *Rabenhorst's Kryptogamen-Flora von Deutschland, Österreich und der Schweiz* 10(3), Teil 2(3): 415 (1937); *Neoceratium tenue* (Ostenf. & J.Schmidt) F.Gómez, D.Moreira & López-García, *Protist* 161: 46 (2010), *nom. illeg.*

Type locality: Red Sea

Ceratium tripos var. *horridum* Cleve, *Fifteenth Annual Report of the Fisheries Board for Scotland, being for the year 1896. Part III. Scientific Investigations* 302, fig. 4 (1897); *Ceratium horridum* (Cleve) Gran, *Rep. Norweg. Fisheries Invest.* 2: 54, 193 (1902)

Type locality: Great Britain

Ceratium buceros O.Zacharias, *Arch. Hydrobiol. Planktonk.* 1: 551, fig. 15 (1906)

Type locality: Azores

Ceratium inclinatum Kofoid, *Univ. Calif. Publ. Zool.* 3: 303, pl. 25, figs 16–21 (1907); *Ceratium buceros* f. *inclinatum* (Kofoid) Böhm, in J.Schiller, *Rabenhorst's Kryptogamen-Flora von Deutschland, Österreich und der Schweiz* 10(3), Teil 2(3): 415 (1937)

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

Ceratium molle Kofoid, *Univ. Calif. Publ. Zool.* 3: 304, pl. 27, fig. 9 (1907); *Ceratium buceros* f. *molle* (Kofoid) Böhm, in J.Schiller, *Rabenhorst's Kryptogamen-Flora von Deutschland, Österreich und der Schweiz* 10(3), Teil 2(3): 417 (1937)

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

Ceratium claviger Kofoid, *Bull. Mus. Compar. Zool. Harvard Coll.* 50: 170, pl. 4, fig. 27 (1907); *Ceratium buceros* f. *claviger* (Kofoid) Böhm, in J.Schiller, *Rabenhorst's Kryptogamen-Flora von Deutschland, Österreich und der Schweiz* 10(3), Teil 2(3): 415 (1937)

Type locality: eastern tropical Pacific Ocean

Ceratium leptosomum Jörg., *Intern. Rev. Ges. Hydrobiol. Hydrogr.* 4, Biol. Suppl., 2: 80, fig. 167 (1911); *Ceratium buceros* f. *leptosomum* (Jörg.) Böhm, in J.Schiller, *Rabenhorst's Kryptogamen-Flora von Deutschland, Österreich und der Schweiz* 10(3), Teil 2(3): 415 (1937)

Type locality: Atlantic Ocean (33°34'N, 48°30'W)

Ceratium horridum f. *denticulatum* Jörg., in Schmidt, *Rep. Danish Oceanogr. Exped. Mediterr. Adjacent Seas*, 2, J.1: (1920); *Ceratium buceros* f. *denticulatum* (Jörg.) Böhm, in J.Schiller, *Rabenhorst's Kryptogamen-Flora von Deutschland, Österreich und der Schweiz* 10(3), Teil 2(3): 417 (1937)

Type locality: Mediterranean Sea (?)

Australian distribution: Gulf of Carpentaria/North-west Shelf, Coral Sea, Qld (Great Barrier Reef, SE coast), N.S.W., East Australian Current, Lord Howe Island, Vic. (Port Phillip Bay), Bass Strait, Tas., S.A., Great Australian Bight, W.A. (S and W coasts)

Extra-Australian distribution: Brazil, South Atlantic Ocean, Caribbean Sea, Gulf of Mexico, U.S.A. (California, Virginia, Maine), Azores, North Atlantic Ocean, British Isles, North Sea, Spain, Portugal, Mediterranean Sea, Adriatic Sea, Black Sea, Red Sea, East Africa, Arabian Sea, Indian Ocean, Bay of Bengal, Indonesia, Gulf of Thailand, South China Sea, East China Sea, Japan, North Pacific Ocean, Papua New Guinea, Solomon Islands, Tasman Sea, New Zealand, SW Pacific Ocean, eastern tropical Pacific Ocean, Peru

Note: Gómez (A list of free-living dinoflagellate species in the world's oceans, *Acta Bot. Croat.* 64: 129–212, 2005) listed *C. tenue* as a synonym of *C. horridum*.

References: E.J.F.Wood, Dinoflagellates in the Australian region, *Austral. J. Mar. Freshw. Res.* 5: 171–351 (1954)

S.W.Jeffrey & G.M.Hallegraeff, Studies of phytoplankton species and photosynthetic pigments in a warm core eddy of the East Australian Current. I. Summer populations, *Mar. Ecol. Prog. Ser.* 3: 285–294 (1980)

N.Revelante, W.T.Williams & J.S.Bunt, Temporal and spatial distribution of diatoms, dinoflagellates and *Trichodesmium* in waters of the Great Barrier Reef Australia, *Journal of Experimental Marine Biology and Ecology* 63: 27–46 (1982)

G.M.Hallegraeff & S.W.Jeffrey, Tropical phytoplankton species and pigments of continental shelf waters of north and north-west Australia, *Mar. Ecol. Prog. Ser.* 20: 59–74 (1984)

G.M.Hallegraeff & D.D.Reid, Phytoplankton species successions and their hydrological environment at a coastal station off Sydney, *Austral. J. Mar. Freshw. Res.* 37: 361–377 (1986)

J.M.Huisman, The genus *Ceratium* Schrank (Dinophyceae) in Bass Strait and adjoining waters, southern Australia, *Austral. Syst. Bot.* 2: 425–454 (1989)

G.D.Parry, J.S.Langdon & J.M.Huisman, Toxic effects of a bloom of the diatom *Rhizosolenia chunii* in Port Phillip Bay, south eastern Australia, *Mar. Biol.* 102: 25–41 (1989)

G.M.Hallegraeff, C.J.S.Bolch, J.M.Huisman & M.F. de Salas, Planktonic dinoflagellates, *Algae of Australia: Phytoplankton of Temperate Coastal Waters* 145–212 (2010)