

**Predicting the invasive potential of the cladoceran *Daphnia lumholtzi* Sars, 1885  
(Crustacea: Cladocera: Daphniidae) in the Neotropics: are generalists threatened and  
relicts protected by their life-history traits?**

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## REFERENCES

- Benzie JAH, 1988. The systematics of Australian *Daphnia* (Cladocera: Daphniidae). Multivariate morphometrics. *Hydrobiologia* 166:163-182.
- Bromley HJ, 1993. A checklist of the Cladocera of Israel and Eastern Sinai. *Hydrobiologia* 257:21-28.
- Cherifi O, Loudiki M, 2002. [Variations de la structure trophique du lac-réservoir oligotrophe Bin El Ouidane (Maroc)].[Article in French]. *Rev. Sci. Eau* 15:193-208.
- Davidson Jr, NL Kelso, WE, Rutherford DA, 1998. Relationships between environmental variables and the abundance of cladocerans and copepods in the Atchafalaya River Basin. *Hydrobiologia* 379:175-181.
- Dumont HJ, El Shabrawy GM, 2008. Seven decades of change in the zooplankton (s.l.) of the Nile Delta lakes (Egypt), with particular reference to Lake Borullus. *Int. Rev. Hydrobiol.* 93:44-61.
- Dumont HJ, Van de Velde I, 1976. Some types of head-pores in the Cladocera as seen by scanning electron microscopy and their possible functions. *Biol. Jb. Dodonaea* 44:135-142.
- Dumont HJ, Verheye HM, 1984. The nature and origin of the crustacean zooplankton of Sahelian Africa, with a note on the Limnomedusa. *Hydrobiologia* 113: 313-325.
- Dumont HJ, Pensaert J, El Moghraby AI, 1984. Cladocera from the Sudan:Red Sea Hills, Jebel Marra and valley of the main Nile. *Hydrobiologia*. 110: 163-169.
- Dzialowski AR, O'Brien WJ, Swaffar SM, 2000. Range expansion and potential dispersal mechanisms of the exotic cladoceran *Daphnia lumholtzi*. *J. Plankton Res.* 22:2205-2223.
- East TL, Havens KE, Rodusky AJ, Brady MA, 1999. *Daphnia lumholtzi* and *Daphnia ambigua*: population comparisons of an exotic and a native cladoceran in Lake Okeechobee, Florida. *J. Plankton Res.* 21:1537-1551.
- Fernando CH, 1980. The Freshwater zooplankton of Sri Lanka, with a discussion of tropical freshwater zooplankton composition. *Int. Rev. Gesamten Hydrobiol.* 65:85-125.
- Fernando CH, Kanduru A, 1984. Some remarks on the latitudinal distribution of Cladocera on the Indian subcontinent. *Hydrobiologia* 113:69-76.
- Ganesan L, Khan RA, 2008. Studies on the ecology of zooplankton in a floodplain wetland of West Bengal, India. Proceedings 12th World Lake Conference, Jaipur, India. Accessed on: 24/02/11. Available from: <http://wldb.ilec.or.jp/data/ilec/wlc12/A%20-%20Ecology%20&%20Biodiversity/A-11.pdf>

- Gauthier H, 1939. [Contribution à l'étude de la faune dulçaquicole de la région du Tchad].[Article in French]. Bull. Inst. Français Afrique Noire 1:110-244.
- Green J, 1967. The distribution and variation of *Daphnia lumholtzi* (Crustacea: Cladocera) in relation to fish predation in Lake Albert, East Africa. J. Zool. Lond. 151:181-197.
- Imoobe TOT, Akoma OC, 2008. Assessment of zooplankton community structure of the Bahir Dar Gulf of Lake Tana, Ethiopia. Ethiop. J. Environ. Stud. Manage. 1:26-34.
- Khalaf AN, Smirnov NN, 1976. On littoral Cladocera of Iraq. Hydrobiology 51:91-94.
- Lin QQ, Duan SS, Hu R, Han BP, 2003. Zooplankton distribution in tropical reservoirs, South China. Int. Rev. Hydrobiol. 88:602-613.
- Masundire HM, 1997. Spatial and temporal variations in the composition and density of crustacean plankton in the five basins of Lake Kariba, Zambia-Zimbabwe. J. Plankton Res. 19:43-62.
- Raghunathan MB, Kumar RS, 2002. Cladocera (Crustacea) of Tamil Nadu - checklist and bibliography. Zoos' Print J. 17:959-961.
- Rey J, Saint-Jean L, 1968. [Les Cladocères (Crustacés, Branchiopodes) du Tchad].[Article in French]. Cah. O.R.S.T.O.M. Hydrobiol. 11: 9-118.
- Sa-Ardrit P, Beamish FWH, 2005. Cladocera, diversity, abundance and habitat in a Western Thailand stream. Aquat. Ecol. 39:353-365.
- Sharma V, Sharma MS, Malara H, Sharma R, Baghela BS, 2008. Trophic status and zooplankton diversity of Lake Jaisamand in relation to its physico-chemical characteristics, p. 490-495 In: M. Sengupta and R. Dalwani (eds.), Proceedings of the 12th World Lake Conference.
- Tanaka S, Ohtaka A, 2010. Freshwater Cladocera (Crustacea, Branchiopoda) in Lake Tonle Sap and its adjacent waters in Cambodia. Limnology 11:171-178.
- Tifnouti A, Chérifi O, Chifaa A, 1994. [Etude du régime alimentaire de cinq espèces de Cladocères dans la retenue Lalla Takerkoust (Maroc)].[Article in French]. Ann. Limnol./Int. J. Lim. 30:285-296.
- Tripathi AK, Sansi RK, Gupta JP, 2008. Pre monsoon community composition and production potential of phyto and zooplanktons at Jalaser Taal Mandalgarh, Bhilwara (Rajasthan), p. 55-66. In: M. Sengupta and R. Dalwani (eds.), Proceedings of the 12th World Lake Conference.
- Zanata LH, Espindola ELG, Rocha O, Pereira RHG, 2003. First record of *Daphnia lumholtzi* (Sars, 1885), exotic cladoceran, in São Paulo State (Brazil). Braz. J. Biol. 63:717-720.