Record Nr. UNINA9910253936303321 Rotifers: Aquaculture, Ecology, Gerontology, and Ecotoxicology / / **Titolo** edited by Atsushi Hagiwara, Tatsuki Yoshinaga Pubbl/distr/stampa Singapore:,: Springer Singapore:,: Imprint: Springer,, 2017 **ISBN** 981-10-5635-8 Edizione [1st ed. 2017.] 1 online resource (XIV, 180 p. 27 illus., 12 illus. in color.) Descrizione fisica Collana Fisheries Science Series, , 2522-0470 Disciplina 595.181 Wildlife Soggetti Fish **Ecology** Zoology Marine sciences Freshwater Fish & Wildlife Biology & Management **Ecology** Marine & Freshwater Sciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references at the end of each chapters and Nota di bibliografia index. Nota di contenuto Chapter 1. Taxonomy 1-1. Current status of morphological classification in aquaculture strains (Kotani, Hagiwara)1-2. Speciation and evolution of Brachionus (Snell, Serra, Fontaneto) Chapter 2 -- Live food 2-1. Mass culture and preservation of Brachionus (Koiso, Kuwata. Hagiwara) 2-2. Enrichment of rotifers and its effect on the growth and survival of fish larvae (Kotani) 2-3. Utility of rotifers on the larval rearing of marine fishes cultivated under various conditions (Sakakura) 2-4. Other potential rotifer species as a live food (Ogata, Kurokura, Hagiwara) Chapter 3 -- Model organism 3-1. Life history evolution in the rotifer (Stelzer) 3-2. Population dynamics in the rotifer (Yoshinaga) 3-3. Aging and lifespan in the rotifer (Kaneko) 3-4. Origin of sex: significance of sexual reproduction (Welch) 3-5. Ecological diagnosis

(Suga, Snell) 3-6. Genomics (Suga, Welch, Lee).

Sommario/riassunto

This book highlights the latest advances in rotifer studies in various

fields including aquaculture, ecology, gerontology and ecotoxicology. The genus Brachionus are an indispensable type of zooplankton, having served as an initial live food for marine larval rearing since the 1960s. Their mass culture techniques have been intensively studied, and some essential achievements have been made - regarding high density culture, employment of valuable dietary algae, automated culture systems, and effective production of resting eggs. These have in turn supported stable and efficient aquatic seedling production for numerous important marine fish species including flounder, sea bream, and bluefin tuna. Further, this group is considered to be a suitable model for studying various aspects in ecology. A series of aquaculture and basic science studies have significantly advanced our understanding of the life history evolution. The studies in these two fields are closely linked, and provide readers with comprehensive information on how rotifers are now being employed in biological investigations.