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Titolo	Cryopreservation of Fish Gametes [[electronic resource] /] / edited by Judith Betsy, Stephen Kumar
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ISBN	981-15-4025-X
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (356 pages)
Disciplina	570.752
Soggetti	Wildlife Fish Animal physiology Biochemistry Conservation biology Ecology Embryology Fish & Wildlife Biology & Management Animal Physiology Animal Biochemistry Conservation Biology/Ecology Aqüicultura Fisiologia animal Reproducció Peixos Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter 1: Reproductive physiology in fishes -- Chapter 2: Endocrine regulation of reproduction with special emphasis on gametogenesis in fishes -- Chapter 3: Factors influencing milt quality in fishes and its usefulness to cryopreservation -- Chapter 4: Energetics of fish spermatozoa -- Chapter 5: Fish sperm quality evaluation after cryopreservation -- Chapter 6: Cryopreservation – History and

Development -- Chapter 7: Cryopreservation of fish gametes- an overview -- Chapter 8: Cryopreservation and short duration storage of germ cells and male gametes of freshwater fishes -- Chapter 9: Cryopreservation of marine fish sperm -- Chapter 10: Sperm cryopreservation in crustaceans -- Chapter 11: State of the art in cryopreservation of bivalve spermatozoa -- Chapter 12: Cryopreservation of germ stem cells in fishes -- Chapter 13: Cryopreservation and storage of oocytes, embryos and embryonic cells of fish -- Chapter 14: Potential of fish gamete cryopreservation in conservation programs in Bangladesh -- Chapter 15: Gamete manipulation and conservation for genetic improvement in penaeid shrimp.

Sommario/riassunto

Understanding the reproductive physiology and endocrinology of fishes is essential for captive maturation and seed production in the field of aquaculture. Studying the spermatology of fishes is a comparatively new focus in aquaculture, which has emerged as an important area of fish research over the past two decades. In this regard, the cryopreservation of fish gametes is a crucial aspect. Moreover, energetics studies of gametes have become essential, considering the loss of vigour in the spermatozoa after cryopreservation. The latest development in this context is the cryopreservation of spermatogonial stem cell, which is also covered in the book, along with detailed information on embryo cryopreservation in fishes and crustaceans. The role of cryopreservation in conservation programmes is another important aspect, one that will especially interest biologists. This book addresses central issues in fish gamete cryopreservation and breeding, while also reviewing the history of cryopreservation. Its most unique feature is the breadth of its coverage, from basic information on reproduction in fishes, to such advanced topics as embryo cryopreservation. Chiefly intended as a handy troubleshooting guide, the book represents a valuable resource for research students in related fields.
