

1. Record Nr.	UNINA9910140631103321
Autore	Wootton R. J (Robert J.)
Titolo	Reproductive biology of teleost fishes // Robert J. Wootton, Carl Smith
Pubbl/distr/stampa	Chichester, [England] : , : Wiley Blackwell, , 2015 ©2015
ISBN	1-118-89139-2 1-118-89136-8 1-118-89138-4
Descrizione fisica	1 online resource (499 p.)
Disciplina	597
Soggetti	Osteichthyes - Reproduction
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Cover; Title Page; Copyright; Dedication: For Ella and Alfie; Dedication: Robert John Wootton (1942-2014); Contents; Preface; Acknowledgements; Abbreviations and acronyms; Chapter 1 Introduction; Introduction; Reproductive modes of the teleosts; Gender systems of teleosts; Spawning dynamics; Modes of fertilisation; Mating systems; Secondary sexual characteristics; Parental care; Reproductive guilds; Reproductive diversity in teleosts: an explanatory framework; Phylogenetic relationships of the teleosts; Life-history theory; Aims of the volume; Chapter 2 Sex determination; Introduction Genotypic sex determination Monofactorial genotypic sex determination; Multifactorial genotypic sex determination; Polyfactorial (polygenic) genotypic sex determination; Environmental sex determination; Evolution of sex-determining mechanisms; Chapter 3 Sex differentiation; Introduction; Embryology of the gonads; Origin and migration of primordial germ cells; Sex differentiation in the gonadal anlagen; Initial differentiation of the gonads; Initial differentiation of ovaries; Initial differentiation of testes; Genetic control of early gonadal differentiation; Synthesis; Chapter 4 Gametogenesis Introduction Structure of ovaries; Gross morphology of the ovaries; Development of female gonoducts; Oogenesis; Oogonial proliferation and oogonial nest formation; Chromatin nucleolus stage; Primary

growth; Secondary growth - vitellogenesis; Vitellogenin and the zona pellucida proteins; Polarity of the oocyte; Oocyte maturation; Ovulation; Atresia; Fertilisation; Genetic control of oogenesis; Dynamics of oocyte development; Spawning dynamics and fecundity; Structure of the testes; Gross morphology of a testis; Development of male gonoducts Accessory structures associated with the testes and gonoducts Spermatogenesis; Spermatocysts; Sertoli cells; Stages of spermatogenesis within a spermatogenic spermatocyst; Differentiated spermatogonia; Primary spermatocysts; Secondary spermatocysts; Spermatids; Spermiation and capacitation; Types of spermatozoa; Structure and phylogenetic distribution; Spermatozoa viability; Genetic control of spermatogenesis; Dynamics of spermatogenesis; Quantitative analysis of sperm production; Chapter 5 Endocrinology of reproduction; Introduction; Brain-pituitary-gonad reproductive axis in vertebrates  
Levels of analysis Gonadal steroids; Sex steroid synthesis; Sex steroid receptors; Endocrine control of oogenesis; Oogonial proliferation and primary growth; Secondary growth: vitellogenesis; Maturation and ovulation; Endocrine control of oogenesis in species with batch spawning; Endocrine control of spermatogenesis; Spermatogonial proliferation; Initiation of meiosis and formation of spermatocysts; Spermiation; Patterns of spawning in relation to spermatogenesis; The pituitary and the gonadotrophins; Brain-pituitary relationship; Gonadotrophs and gonadotrophins; Gonadotrophin receptors Hypothalamic control of the pituitary

---

### Sommario/riassunto

Reproductive Biology of Teleost Fishes is the first integrated review of the reproductive biology of the bony fishes, which are the most species-rich and diversified group of vertebrates. Teleosts display remarkable variation in their modes of reproduction, and this volume is intended to provide a framework for understanding the remarkable reproductive diversity of this group. It describes their reproductive biology using, wherever possible, phylogenetic analyses and life-history theory as a means to interpret the information. The book addresses the genetic, physiological, behavioural, ecolog

---