

1. Record Nr.	UNINA9910253932803321
Titolo	The Antarctic Silverfish: a Keystone Species in a Changing Ecosystem / / edited by Marino Vacchi, Eva Pisano, Laura Ghigliotti
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-55893-5
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XV, 314 p. 67 illus., 41 illus. in color.)
Collana	Advances in Polar Ecology, , 2468-5712 ; ; 3
Disciplina	333.7
Soggetti	Climatic changes Wildlife Fishes Aquatic ecology Animal ecology Environmental management Climate Change Fish & Wildlife Biology & Management Freshwater & Marine Ecology Animal Ecology Environmental Management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Section I: Evolution and adaptations. Chapter 1. Evolution reshaped life for the water column: the skeleton of the Antarctic silverfish Pleuragramma antarctica (Boulenger 1902) -- Chapter 2. Coping with ice: Freeze avoidance in the Antarctic silverfish (Pleuragramma antarctica) from egg to adult -- Chapter 3. The unique haemoglobin system of migratory Pleuragramma antarctica: correlation of haematological and biochemical adaptations with mode of life -- Chapter 4. Pro-oxidant challenges and antioxidant adaptation of Pleuragramma antarctica in platelet ice -- Section II: Ecology and life history. Chapter 5. Diet and trophic ecology of adult Antarctic silverfish (Pleuragramma antarctica) -- Chapter 6. Trophic ecology of early developmental stages of Antarctic silverfish -- Chapter 7. The role of

lipids in the life history of the Antarctic silverfish *Pleuragramma antarctica* -- Chapter 8. Energetics of the Antarctic silverfish, *Pleuragramma antarctica*, from the Western Antarctic Peninsula -- Chapter 9. Reproductive strategies of the Antarctic silverfish: known knowns, known unknowns and unknown unknowns -- Chapter 10. Population structure and life history connectivity of Antarctic silverfish (*Pleuragramma antarctica*) in the Southern Ocean ecosystem -- Section III: Challenges and conservation perspectives. Chapter 11. Acoustic methods of monitoring silverfish distribution and abundance -- Chapter 12. Impact of climate change on the Antarctic silverfish and its consequences for the Antarctic ecosystem -- Chapter 13. Conservation and management of the Antarctic silverfish *Pleuragramma antarctica* populations and habitats.

---

#### Sommario/riassunto

This book encompasses the body of available scientific information on the notothenioid fish *Pleuragramma antarctica* commonly known as Antarctic silverfish. This plankton-feeder of the intermediate trophic level is the most abundant fish in the coastal regions of high Antarctica, and plays a pivotal ecological role as the main prey of top predators like seals, penguins, whales and Antarctic toothfish. Broad circum-polar distribution, a key role in the Antarctic shelf pelagic ecosystem, and adaptations makes understanding the species' likely response to environmental change relevant to foresee the potential responses at the local ecosystem level. Additionally, a detailed understanding of the abundance and trophic interactions of such a dominant keystone species is a vital element of informing the development of marine spatial planning and marine protected areas in the Antarctic continental shelf region. Experts in the field provide here unique insights into the evolutionary adaptation, eco-physiology, trophic ecology, reproductive and population ecology of the Antarctic silverfish and provide new clues about its vulnerability in facing the challenges of the ongoing environmental changes.

---