Record Nr. UNINA9910877885703321 Fish cognition and behavior / / edited by Culum Brown, Kevin Laland, **Titolo** Jens Krause Pubbl/distr/stampa Ames, Iowa, : Wiley-Blackwell, 2011 **ISBN** 1-283-17819-2 9786613178190 1-4443-4253-3 1-4443-4250-9 Edizione [2nd ed.] Descrizione fisica 1 online resource (474 p.) Fish and aquatic resources series Collana Altri autori (Persone) **BrownCulum** LalandKevin KrauseJens 597 Disciplina Soggetti Fishes - Behavior Fishes - Psychology Cognition in animals Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Fish Cognition and Behavior; Contents; Preface and Acknowledgements; Series Foreword; List of Contributors; 1 Fish Cognition and Behaviour; 1.1 Introduction; 1.2 Contents of this book; References; 2 Learning of Foraging Skills by Fish; 2.1 Introduction; 2.2 Some factors affecting the learning process; 2.2.1 Reinforcement; 2.2.2 Drive; 2.2.3 Stimulus attractiveness; 2.2.4 Exploration and sampling; 2.2.5 Attention and simple association; 2.2.6 Cognition; 2.2.7 Memory systems and skill transfer; 2.3 Patch use and probability matching; 2.4 Performance; 2.5 Tracking environmental variation 2.6 Competition 2.7 Learning and fish feeding: some applications; 2.8 Conclusions; Acknowledgements; References; 3 Learned Defences and Counterdefences in Predator-Prey Interactions; 3.1 Introduction; 3.2 The predator-prey sequence; 3.2.1 Encounter; 3.2.1.1 Avoiding dangerous habitats; 3.2.1.2 Changing activity patterns; 3.2.2 Detection;

3.2.2.1 Crypsis; 3.2.2.2 Sensory perception; 3.2.3 Recognition; 3.2.3.1 Associative learning; 3.2.3.2 Learning specificity; 3.2.3.3 Search

images; 3.2.3.4 Aposematism and mimicry; 3.2.4 Approach; 3.2.4.1 Pursuit deterrence

3.2.4.2 Gaining information about the predator3.2.4.3 Social learning; 3.2.4.4 Habituation; 3.2.5 Evasion; 3.2.5.1 Reactive distance and escape speed and trajectory; 3.2.5.2 Survival benefits/capture success; 3.3 Summary and discussion; Acknowledgements; References; 4 Learning about Danger: Chemical Alarm Cues and Threat-Sensitive Assessment of Predation Risk by Fishes; 4.1 Introduction; 4.2 Chemosensory cues as sources of information; 4.2.1 Learning, innate responses and neophobia; 4.2.2 Learned predator recognition through conditioning with alarm cues

4.3 Variable predation risk and flexible learning4.3.1 Assessing risk in time; 4.3.2 Sensory complementation and threat-sensitive learning; 4.4 Generalisation of risk; 4.4.1 Generalising of predator cues; 4.4.2 Generalisation of non-predator cues; 4.5 Predator recognition continuum hypothesis; 4.5.1 Ecological selection for innate versus learned recognition of predators; 4.5.2 Ecological selection for generalised learning; 4.6 Retention: the forgotten component of learning; 4.7 Conservation, management and learning; 4.7.1 Conditioning predator recognition skills

4.7.2 Anthropogenic constraints4.7.3 Field-based studies; 4.8 Conclusions; Acknowledgements; References; 5 Learning and Mate Choice; 5.1 Introduction; 5.2 Sexual imprinting; 5.2.1 Does sexual imprinting promote sympatric speciation in fishes?; 5.3 Learning after reaching maturity; 5.4 Eavesdropping; 5.4.1 Eavesdropping and mate choice; 5.4.2 Benefits of eavesdropping; 5.4.3 The audience effect; 5.5 Mate-choice copying; 5.5.1 Mate-choice copying - first experimental evidence and consequence; 5.5.2 Mate-choice copying - evidence from the wild

5.5.3 Mate-choice copying when living in sympatry or allopatry

## Sommario/riassunto

In the second edition of this fascinating book an international team of experts have been brought together to explore all major areas of fish learning, including: Foraging skills Predator recognition Social organisation and learning Welfare and pain Three new chapters covering fish personality, lateralisation, and fish cognition and fish welfare, have been added to this fully revised and expanded second edition. Fish Cognition and Behavior, Second Edition contains essential information for all fish biologists and animal behaviorists