

# FISH DICHOTOMOUS KEY

in your notebook, give the title and then use the dichotomous key to identify the 10 Illinois fish.  
Below are pictures of 10 Illinois fish. See if you can identify them using this simple key.

1. a) Whiskerlike barbels present on head (catfishes)—  
Go to 2

b) No whiskerlike barbels present on head—Go to 3



2. a) Caudal fin forked—channel catfish

b) Caudal fin rounded—tadpole madtom



3. a) Mouth facing downward (suckers)—Go to 4

b) Mouth not facing downward—Go to 5

4. a) Front edge of dorsal fin at least 4 times longer  
than back edge—quillback

b) Front edge of dorsal fin less than 4 times longer  
than back edge—black rehorse



5. a) Body elongate, more than twice as long as tail—  
Go to 6

b) Body not elongate, but slab-sided. Not more than  
twice as long as tail—bluegill



6. a) First five rays of dorsal fin spikelike—brook  
stickleback

b) First five rays of dorsal fin not spikelike—Go to 7



7. a) Two dorsal fins. (darters)—Go to 8

b) Only one dorsal fin—Go to 9

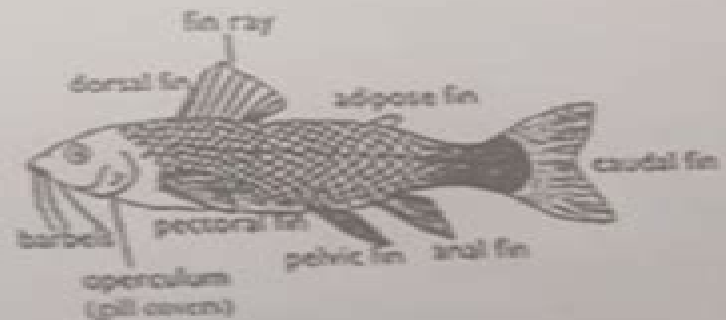
8. a) Bold irregular black stripe on side, like a series of  
connected blotches—blackside darter

b) No bold black markings on side. Markings are  
narrow vertical bars—orangefthroat darter

9. a) Caudal fin forked—spottin shiner

b) Caudal fin rounded—blackspotted topminnow

Fish Anatomy



All drawings above taken from P.W. Smith (1979).  
The Fishes of Illinois.

# Fish Dichotomous Key With Answers

**Peipei Pang**



## **Fish Dichotomous Key With Answers:**

The Living Ocean Teacher's Guide , **Invertebrate Fish Food Resources of Lotic Environments** Lowell E. Keup,1988 Learning About Fishes, Grades 4 - 8 Debbie Routh,2002-01-01 Bring the outside inside the classroom using Learning about Fishes for grades 4 and up This 48 page book covers classification appearance adaptations and endangered species It includes questions observation activities crossword puzzles research projects study sheets unit tests a bibliography and an answer key *Fish and Fisheries Management in Lakes and Reservoirs* ,1993 **Animals Alive!** Walter Dennis Holley,1997 A teacher s guide and resource book for designing and conducting live animal activities that are non invasive and observation oriented Resources in education ,1987-07 Mammals Katharine Hall,2016-02-10 All mammals share certain characteristics that set them apart from animal classes But some mammals live on land and other mammals spend their lives in water each is adapted to its environment Land mammals breathe oxygen through nostrils but some marine mammals breathe through blowholes Compare and contrast mammals that live on land to those that live in the water

*Hermaphroditism and Mating Systems in Fish* Tetsuo Kuwamura,Kota Sawada,Tomoki Sunobe,Yoichi Sakai,Tatsuru Kadota,2022-12-13 This book provides a comprehensive review of hermaphroditism in fishes It focuses on the behavioral ecology of functional hermaphroditism in fishes and discusses its evolution Approximately 99% of all vertebrate species consist of separate sex individuals gonochorists i e pure males and pure females The other 1% of vertebrate species are hermaphroditic and almost all of them are fishes Among hermaphroditic fishes four major types of hermaphroditism are known simultaneous or synchronous hermaphroditism protandry male to female sex change protogyny female to male sex change and bidirectional sex change or reversed sex change in protogynous species The book examines the occurrence of hermaphroditism in relation to phylogeny and mating systems It also reviews the hypotheses for the evolution of hermaphroditism and the size advantage model which is the main theory for the evolution of sex change tested in relation to the mating system The appendix in the last chapter provides an annotated list of hermaphroditic fish species ca 500 spp

Environmental Benefits Study of San Joaquin Valley's Fish and Wildlife Resources ,1990 **Research and Advanced Technology for Digital Libraries** José Luis Borbinha,Sarantos Kapidakis,Christos Papatheodorou,Giannis Tsakonas,2009-09-29 This book constitutes the refereed proceedings of the 13th European Conference on Research and Advanced Technology for Digital Libraries ECDL 2009 held in Corfu Greece in September October 2009 The 28 revised full papers and 6 revised short papers presented together with 2 panel description the extended abstracts of 20 revised poster and 16 demo papers were carefully reviewed and selected from a total of 181 submissions The papers are organized in topical sections on services infrastructures interaction knowledge organization systems interfaces resource discovery architectures information retrieval preservation and evaluation **New York Fish and Game Journal** ,1985 **The Hudson** Stephen P. Stanne,Roger G. Panetta,Brian E. Forist,Maija Liisa Niemisto,2021-01-15 Since 1996 The Hudson has

been an essential guide to the full sweep of the great river's natural history and human heritage. This updated third edition includes the latest information about the ongoing fight against pollution plus vibrant new full color illustrations showing the plants and wildlife that make this ecosystem so special.

**Ichthyology in Context (1500-1880)**, 2023-12-28 Ichthyology in Context 1500 1880 provides a broad spectre of early modern manifestations of human fascination with fish fish understood in the early modern sense of the term as aquatilia all aquatic animals including sea mammals and crustaceans It addresses the period's quickly growing knowledge about fish in its multiple varied and rapidly changing interaction with culture This topic is approached from various disciplines history of science cultural history history of collections historical ecology art history literary studies and lexicology Attention is given to the problematic questions of visual and textual representation of fish and pre and post Linnean classification and taxonomy This book also explores the transnational exchange of ichthyological knowledge and items in and outside Europe Contributors Cristina Brito Tobias Bulang Jo o Paulo S Cabral Florike Egmond Dorothee Fischer Holger Funk Dirk Geirnaert Philippe Glardon Justin R Hanisch Bernardo Jerosch Herold Rob Lenders Alan Moss Doreen Mueller Johannes Müller Martien J P van Oijen Pietro Daniel Omodeo Anne M Overduin de Vries Theodore W Pietsch Cynthia Pyle Marlise Rijks Paul J Smith Ronny Spaans Robbert Striekwold Melinda Susanto Didi van Trijp Sabina Tsapaeva and Ching Ling Wang

**Fish Identification Tools for Biodiversity and Fisheries Assessments** Johanne Fischer, 2013 This review provides an appraisal of existing state of the art fish identification ID tools including some in the initial stages of their development and shows their potential for providing the right solution in different real life situations The ID tools reviewed are Use of scientific experts taxonomists and folk local experts taxonomic reference collections image recognition systems field guides based on dichotomous keys interactive electronic keys e g IPOFIS morphometrics e g IPEZ scale and otolith morphology genetic methods Single nucleotide polymorphisms SNPs and Barcode BOL and Hydroacoustics The review is based on the results and recommendations of the workshop Fish Identification Tools for Fishery Biodiversity and Fisheries Assessments convened by FAO FishFinder and the University of Vigo and held in Vigo Spain from 11 to 13 October 2011 It is expected that it will help fisheries managers environmental administrators and other end users to select the best available species identification tools for their purposes

**ANIMAL CLASSIFICATION** NARAYAN CHANGDER, 2024-03-18 Note Anyone can request the PDF version of this practice set workbook by emailing me at cbsenet4u@gmail.com You can also get full PDF books in quiz format on our youtube channel <https://www.youtube.com/SmartQuizWorldn2q> I will send you a PDF version of this workbook This book has been designed for candidates preparing for various competitive examinations It contains many objective questions specifically designed for different exams Answer keys are provided at the end of each page It will undoubtedly serve as the best preparation material for aspirants This book is an engaging quiz eBook for all and offers something for everyone This book will satisfy the curiosity of most students while also challenging their trivia skills and introducing them to new information Use this invaluable book to test your subject matter

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Science for Lower Sec Vol 1 Yugarani Thanabalasingam,2008      **General Technical Report NE** ,1980      *Jacaranda*

*Science Quest 7 Victorian Curriculum, 3e learnON and Print* Graeme Lofts,2025-08-25      *AP BIOLOGY* NARAYAN

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