



FISHES OF THE TAIHU LAKE

太湖 鱼类志

倪 勇 朱成德 主编

by Ni Yong and Zhu Chengde

Shanghai Scientific & Technical Publishers

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内 容 提 要

本书为江苏鱼类区系研究的一个组成部分,对了解太湖鱼类资源的历史变动和合理开发、可持续利用有现实意义,也是迄今太湖鱼类研究较为完整的一部专著。

本书总论介绍太湖地理环境、气候特征、水系水文、水质状况、饵料生物、鱼类资源、渔业发展、渔政管理、鱼类研究史和鱼类区系。各论编入太湖地区鱼类 107 种,分隶于 14 目、25 科、73 属。书中较为详细地描述了各种鱼类的形态特征,并重点介绍经济鱼类的生物学特性、渔业状况和经济价值等,还附有插图和检索表。

本书可供水产科研人员和湖泊水产增殖保护管理工作参考,大专院校生物系和水产专业师生也可阅读参考。

出版说明

科学技术是第一生产力。21 世纪,科学技术和生产力必将发生新的革命性突破。

为贯彻落实“科教兴国”和“科教兴市”战略,上海市科学技术委员会和上海市新闻出版局于 2000 年设立“上海科技专著出版资金”,资助优秀科技著作在上海出版。

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序

太湖是我国著名的五大淡水湖泊之一。太湖水面辽阔,烟波浩渺,风景秀丽,资源丰富,是镶嵌在祖国长江三角洲经济发达地区的一颗璀璨明珠。

有关太湖鱼类的记载历史悠久,源远流长。据西晋郭璞(公元272~322年)述有“鲿鱼”,记载:“鱼狭薄而头长,大者尺馀,太湖今饶之,一名刀鱼”,说明当时太湖已盛产鲿鱼。清《太湖备考》记述“鲢残鱼”(即大银鱼),“状同银鱼,大则倍之”;宋《吴郡志》载有:“吴王孙权江行,食鲢弃馀化”;而罗熊《苏州府志》记有:“疑吴王阖闾非孙权也,后者皆宗罗说”。可见,早在公元前475年战国时期或至少在三国时期,已知太湖出产比银鱼大一倍的大银鱼。中华人民共和国成立后,太湖渔业也获得了新生。许多科技工作者和广大渔民群众对太湖的鱼类及其资源利用,开展了大量的调查研究和渔业实践,积累了丰富而宝贵的文献资料,为本书的编撰和出版奠定了坚实的基础。

1964年5月,江苏省太湖渔业生产管理委员会成立。渔管会的历届成员及其各部门同志,在沿湖各级党委和政府的大力支持下,以振兴太湖渔业为己任,紧密联系太湖水产资源及繁殖保护、水域环境和渔业生产的实际,使太湖鱼类资源得到合理利用,捕捞产量稳定上升,渔业结构逐步趋优,渔民收入逐年提高,渔政管理不断强化,太湖渔业从单一的捕捞渔业,逐步走向捕养结合和目前的生态渔业的发展轨道,为我国湖泊鱼业的生产和管理提供了“管理湖泊”、“保护湖泊”、“经营湖泊”和“繁荣湖泊”的典型经验,在湖泊渔业管理与发展上走在了全国的前列。《太湖鱼类志》集中反映了这些辛勤劳动和不断创造积累的成果。

本书概述了太湖的地理环境、气候特征、水系水文、水质状况、饵料生物、鱼类资源、渔业发展、渔政管理、鱼类研究史和鱼类区系等,并参阅了大量的文献资料,对现有鱼类标本和历史记载的鱼类进行认真的鉴定和细致的核实,对确认的107种鱼类给予正确的叙述,并附有每种鱼的插图。本书科学性强,图文并茂,是了解太湖鱼类种类和渔业的资源、生产和管理较为系统的专著。

值此《太湖鱼类志》出版之际,谨向长期从事太湖渔业生产的广大渔民、渔政管理干部和科技人员,以及为编写、出版此书付出辛勤劳动的专家、同志们,致以诚挚的感谢和崇高的敬意。希望加快太湖环境治理,保护太湖生态环境,维持生物多样性,合理开发利用太湖渔业资源,为长江三角洲地区的经济持续发展作出应有的贡献。

朱家新

2005年3月

前 言

太湖是我国五大淡水湖泊之一。太湖地处北半球暖温带、长江三角洲南缘,水面广阔,自然条件优越,气候温暖湿润,鱼类资源较为丰富,其中有些种类是捕捞和增殖放养的对象,具有较高的经济价值。20世纪20年代以来,特别是中华人民共和国成立后,一些学者、高等院校和科研机构对太湖鱼类进行了多次的调查研究,积累了较多的资料和一定数量的标本。自江苏省太湖渔业生产管理委员会于1964年成立以来,40年间,太湖渔业生产和管理取得了许多宝贵的经验;2002年9月至2004年6月又组织了专门的鱼类采集,收集到相当数量的标本(约7000尾)。因此,编撰、出版一部《太湖鱼类志》有了比较扎实的基础。一本比较完整、系统的太湖鱼类基础资料,对太湖鱼类资源的合理开发利用和渔业生产的可持续发展,具有重要意义。同时,也有助于向全国大、中型湖泊管理者介绍江苏省太湖渔业管理委员会管理太湖的比较成功的经验和有成效的增殖模式。

本志主要以下列机构历年来在太湖地区采集的鱼类标本和资料为依据,即江苏省太湖渔业管理委员会、上海水产大学(原上海水产学院)、华东师范大学生命科学学院、中国水产科学研究院淡水渔业研究中心、南京农业大学渔业学院、苏州大学农业技术学院、江苏省淡水水产研究所、南京大学生命科学院、中国科学院南京地理与湖泊研究所、中国科学院水生生物研究所、中国科学院动物研究所、浙江省淡水水产研究所、苏州市水产研究所、苏州市吴中区水产技术推广站和苏州市水产养殖场有限公司等。

本志在总论部分叙述了太湖地区的地理环境、气候特点、水系水文、水质状况、饵料生物、鱼类资源、渔业发展、渔政管理、鱼类研究史和鱼类区系。在各论部分列入鱼类107种(14目、25科、73属),比以往记录实际增加了4属4种[宽鳍鳊 *Zacco platypus* (Temminck et Schlegel)、革条鲃 *Acheilognathus himantegus* Günther、瓦氏黄颡鱼 *Pelteobagrus vachelli* (Richardson)和长身鳊 *Coreosini perca roulei* (Wu)];对各种鱼类的形态特征进行了较为详细的记述,尽可能介绍一些经济鱼类的生物学特性、渔业状况和经济价值等;同时,对银鱼科(Salangidae)和鳊鲂属(*Rhodeus*)等一些种类的分类处理作了新的探讨。为便于识别,每种鱼均附有检索表和外形图。本书的鱼类分类采用J. S. Nelson (1994年)的分类系统。本志是一部全面、系统记录太湖地区鱼类研究和渔业发展的著作,也是继《西湖鱼类志》(朱元鼎,1932)和《白洋淀鱼类》(郑葆珊等,1960)后我国第三部湖泊鱼类专著。

本书承江苏省海洋与渔业局宋家新局长作序,上海水产大学伍汉霖教授审阅文稿;在调查和编撰过程中,得到江苏省海洋与渔业局、苏州市科学技术委员会、苏州市水产技术推广站、太湖周边各区县水产局和技术推广站、江苏省太湖渔业管理委员会3个渔政监督大队,以及前述科研和教育等单位的大力支持;曹文宣院士、李思忠、孙桐英、张玉玲、王幼槐、邓思明、张春光、张鸮、刘焕章等教授、研究员惠借文献并提出宝贵意见;陈校辉、张松、钟俊生、许爱国、施利燕、沈和平、顾莺等协助鱼类标本采集、测量、摄影、资料查阅、文稿处理工作等。在此,谨致衷心感谢。

书中有不当或错误之处,敬请读者给予指正。

倪 勇 朱成德

2005年3月

Preface

Taihu Lake, located in warm temperate zone in the Northern Hemisphere and south edge of Changjiang River delta, is one of the five big freshwater lakes in China. The water surface of the lake is vast, with favourable in natural conditions, warm and damp in climate, and richer in fish resources. Some of the resources are of higher commercial values for fishing and restocking. Since the 1920s, especially after the founding of the People's Republic of China in 1949, surveys and researches on fishes of Taihu Lake have repeatedly been conducted by several authors, institutions of higher learning and scientific organizations and a lot of data and certain amount of specimens have been accumulated. During the forty years of the founding of Taihu Lake Fisheries Production Management Committee in 1964, the Committee has gained much valuable experience in the leadership, management and fisheries production. From September 2002 to June 2004 the Committee also organized the collection of fishes and large quantity of samples (about 7,000 specimens) have been collected. In such cases, the edition and publication of a volume of *Fishes of the Taihu Lake* has a rather sound basis. A volume of more comprehensively and systematically essential data on fishes of Taihu Lake is of great significance to the rational exploitation and utilization of fish resources as well as to sustainable development of fisheries production in Taihu Lake. Moreover, it also contributes the Taihu Lake Fisheries Production Management Committee to introducing its more successful experience in managing Taihu Lake and effective enhancement pattern to those who manage large and medium lakes all over the country.

The present volume is based on the fish samples and data collected from Taihu Lake area over the years by the following relevant organizations, namely Taihu Lake Fisheries Production Management Committee, Shanghai Fisheries University (formerly called Shanghai Fisheries College), Life Science College of East China Normal University, Freshwater Fisheries Research Center, Chinese Academy of Fishery Sciences, Fisheries College of Nanjing Agricultural University, Agricultural Technical College of Suzhou University, Freshwater Fisheries Research Institute of Jiangsu Province, Life Academy of Nanjing University, Nanjing Geographical and Limnological Research Institute, Academia Sinica, Hydrobiological Research Institute, Academia Sinica, Animal Research Institute, Academia Sinica, Freshwater Fisheries Research Institute of Zhejiang Province, Fisheries Research Institute of Suzhou, Wuzhong District Fisheries Technical Extension of Suzhou, Suzhou municipal Aquaculture Farm Co. Ltd., etc.

This volume is divided into two parts: a general survey and a systemic description. In

Part I, the authors outline the geographical environment, climatic characteristics, river system and hydrology, water quality, food organism, fish resources, fisheries development, fisheries administrative management, history of fish research, and ichthyological fauna. In part II, the authors present a total of 107 fish species (belonging to 73 genera in 25 families of 14 orders), a real increase of 4 genera and 4 species [*Zacco platypus* (Temminck et Schlegel), *Acheilognathus himantegus* Günther, *Pelteobagrus vachelli* (Richardson) and *Coreosini-perca roulei* (Wu)] as compared with former records. Furthermore, a detailed account of morphological features of various species, with special reference to biological characteristics, fisheries status and economic values of some commercially important species, is described. At the same time, some new investigations were made on the classification of some species of Salangidae and *Rhodeus*. In order to facilitate the distinction, each species has the keys to all taxonomic categories and contour figures are given. The J. S. Nelson's classification system (1994) is adopted in this volume. This monograph is a more comprehensive and systemic research on fishes and fisheries development of Taihu Lake area, and is also the third monograph concerning lake fishes in our country following *Fishes of the West Lake* (Chu Yuanting, 1932) and *Fishes of the Baiyangdian Lake* (Zheng Baoshan et al., 1960).

We are most grateful to Song Jiaxin of director of Ocean and Fisheries Bureau of Jiangsu Province for writing preface, to Professor Wu Hanlin from Shanghai Fisheries University for going over the manuscript. In the course of surveys and compilation, we acknowledge to Ocean and Fisheries Bureau of Jiangsu Province, the Scientific and Technological Committee of Suzhou, Fisheries Technical Extension Station of Suzhou, Fisheries Bureaux and Technical Extension Stations of various districts and counties around Taihu Lake, three Fisheries Administrative Supervision Brigades of Taihu Lake Fisheries Management Committee and the abovementioned scientific and educational units for influential support. Thanks also extend to academician Cao Wenxuan, professors and research fellows Li Sizhong, Sun Guoying, Zhang Yuling, Wang Youhuai, Deng Siming, Zhang Chunguang, Zhang E, Liu Huanzhang for lending documents and putting forth valuable opinions, to Chen Xiaohui, Zhang Song, Zhong Junseng, Xu Aiguo, Shi Liyan, Shen Heping and Gu Ying for assisting the collection of fish specimens, specimens measurements, photographs taken, consultation of data, and sorting out the manuscript input.

The chief editors welcome all constructive criticisms. They will be highly valued, especially if these suggestions can lead to a second edition.

Ni Yong and Zhu Chengde

March 2005



太湖地区示意图

注：此图不作划界依据
审图号：苏S(2005) 012号



图2 鳗鲡 *Anguilla japonica* Temminck et Schlegel



图4 刀鲚 *Coilia nasus* Temminck et Schlegel



图10 青鱼 *Mylopharyngodon piceus* (Richardson)

说明：彩图图号与正文图号一致



图 12 赤眼鲮 *Squaliobarbus curriculus* (Richardson)



图15 鳊 *Elopichthys bambusa* (Richardson)



图 16 贝氏鲮 *Hemiculter bleekeri* Warpachowsky

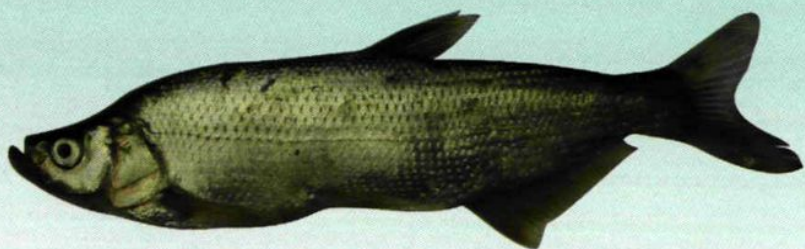


图 18 红鳍原鲃 *Cultrichthys erythropterus* (Basilewsky)



图 19 鲮 *Parabramis pekinensis* (Basilewsky)



图 20 团头鲂 *Megalobrama amblycephala* Yih



图22 翘嘴鲌 *Culter alburnus* Basilewsky



图23 达氏鲌 *Culter dabryi* Bleeker



图24 蒙古鲌 *Culter mongolicus* (Basilewsky)



图26 似鲮 *Toxabramis swinhonis* Günther



图27 寡鳞飘鱼 *Pseudolaubuca engraulis* (Nichols)



图33 似鳊 *Pseudobrama simoni* (Bleeker)



图 34 鳊 *Aristichthys nobilis* (Richardson)



图35 鲢 *Hypophthalmichthys molitrix* (Cuvier et Valenciennes)

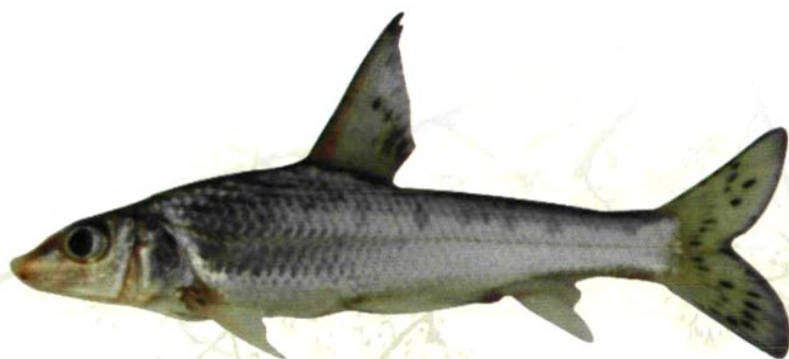


图 37 花鲢 *Hemibarbus maculatus* Bleeker

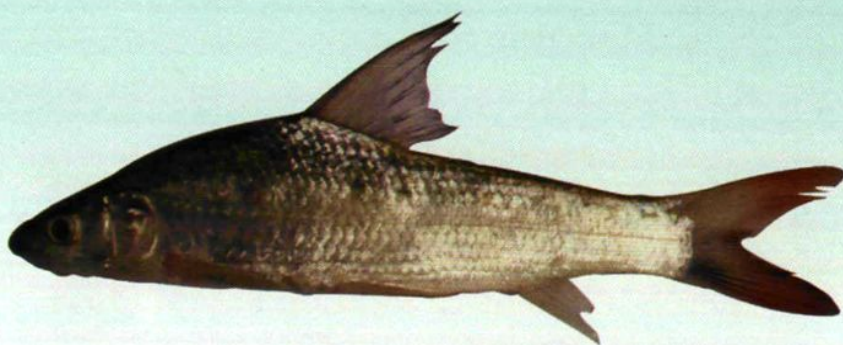


图38 似刺鲃 *Paracanthobrama guichenoti* Bleeker



图39 麦穗鱼 *Pseudorasbora parva* (Temminck et Schlegel)



图40 黑鳍鲈 *Sarcocheilichthys nigripinnis* (Günther)