

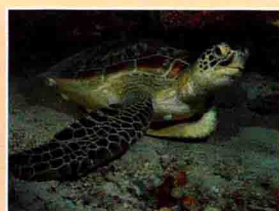
大学英语拓展系列教程

陆国飞◎总主编

水产英语

SHUICHAN YINGYU

陆国飞◎主编



海军出版社

水产英语

主编 陆国飞

 海洋出版社

2016年·北京

内 容 简 介

本书是浙江海洋大学大学英语拓展教程系列教材之一,是为水产类专业学生学习完通用大学英语之后和学习专业英语之前的英语拓展学习而编写的教材。

主要内容:本书涵盖了水产领域的各个方面,主要包括水产史、渔业资源、渔具、渔业环境、水产养殖、海洋生物、鱼病防治、渔业法规、渔业科学和渔业管理与发展等话题,通过解读具有一定专业性的文章、材料,提高学生专业英语的阅读能力。

本书特色:本教材课文材料主要选自英语国家的专题网站有关水产领域的普及性知识,并经过编者的改写而成,语言通俗地道,内容涉及水产行业各个领域,让学生畅游在英语世界里学习水产知识。

适用范围:主要适用于高等院校水产专业的学生。

图书在版编目(CIP)数据

水产英语/陆国飞主编.—北京:海洋出版社,2016.1

ISBN 978-7-5027-9332-6

I. ①水… II. ①陆… III. ①水产养殖—英语—高等学校—教材 IV. ①H31

中国版本图书馆 CIP 数据核字(2015)第 298278 号

责任编辑:张鹤凌 张墨嫒

责任校对:肖新民

责任印制:赵麟苏

排版:晓阳

出版发行:海洋出版社

地址:北京市海淀区大慧寺路8号(716房间)开
100081

经销:新华书店

技术支持:(010) 62100057

发行部:(010) 62132549 (010) 68038093

总编室:(010) 62114335

网 址:www.oceanpress.com.cn

承 印:北京朝阳印刷厂有限责任公司

版 次:2016年8月第1版

2016年8月第1次印刷

本:787mm×1092mm 1/16

印 张:14.5

字 数:220千字

定 价:39.00元

本书如有印、装质量问题可与发行部调换

本社教材出版中心诚征教材选题及优秀作者,邮件发至 hyjccb@sina.com



陆国飞

浙江海洋大学外国语学院副院长，教授。长期从事英语专业教学与研究，学术方向翻译史。主讲过《大学英语》《基础英语》《英语语法》《英语口语》《高级英语》和《翻译理论与实践》等课程；完成主持省教育厅课题3项，主持国家教育部人文社科项目1项；负责并完成《翻译理论与实践》《高级英语》校级重点课程建设和《高级英语》校级精品课程建设，完成主持《英语专业应用型人才培养模式改革与研究》校级重点教改。2008年获学校教学优秀奖，2009年获舟山市第四届拔尖人才奖，2010年获第三届校级教学名师奖。出版著作2部，教材2部，开发表论文近三十篇，其中一篇被中国人民大学报刊资料中心全文收录，另一篇被《高等学校文科学术文摘》卡片目录收录。主编过《舟山人学英语》口语教材三册，为舟山市政府、企事业单位翻译过近百万字的外宣资料。

社会兼职：现兼任浙江省大学外语教学指导委员会会员、浙江省翻译协会理事、舟山市翻译协会常务理事。

大学英语拓展系列教程

陆国飞◎总主编

- 《水产英语》
- 《船舶与海洋工程英语》
- 《人文英语》
- 《航运英语》



责任编辑：张鹤凌 张翌嫒
封面设计：申 彪

浙江海洋大学特色教材编委会

主 任：吴常文

副主任：虞聪达

编 委：（按姓氏笔画排序）

王 颖	方志华	邓一兵
邓尚贵	全永波	李 强
吴伟志	宋秋前	竺柏康
俞存根	唐志波	黄永良
黄品全	韩伟表	程继红
楼然苗	蔡慧萍	

总 序

语言是交流的工具、信息的载体。众多语言中，英语无疑是人类生活各个领域中使用最广泛的语言，其重要性在社会生活信息化和经济全球化的过程中日显突出。许多国家都把英语教育纳入了基础教育发展战略，成为公民素质教育的重要组成部分，中国也不例外。在中国，英语被列为基础教育的一门主要课程，与语文数学并列，是一门伴随有志者一生的课程。中高考英语分数比重很高，考研、考博英语必考，托福雅思英语成为出国留学的通行证。而大学英语的学习具有承前启后的衔接功能。学生学好了大学英语，就掌握了通向考研、考博和出国留学的钥匙，从而有机会实现多元学习与价值的目标。

教育部高等学校大学外语教学指导委员会于2015年半年出台了《大学英语教学指南》(征求意见稿)(以下简称《指南》)。它是高校教学改革不断深入的产物，在《指南》中，大学英语课程设定了三级目标体系：基础目标、高级目标和发展目标。“基础目标”是英语入学水平较低的学生应达到的基本要求，“提高目标”是大多数大学生应达到的目标要求，“发展目标”是针对各高校人才培养计划的特殊需要以及学生的能力、需求和兴趣

而提出的多元目标要求。《指南》提出，大学英语课程根据教学内容可分为通用英语（English for General Purposes）、专门用途英语（English for Specific Purposes）和通识教育类英语（English for General Education）三个类别。大学英语教学应实行多模块教学，在教学通用英语（听说读写译）的基础上，增加专门用途英语（学术英语、职业英语或行业英语等）以及人文英语（跨文化交际）等模块，以适合不同专业和不同个体的需求。

大学英语因其涉及面广，影响大，历来是高校教学改革浪潮中的先锋。随着高校教学改革的深化、创新机制的提高，社会对大学英语人才培养也给予新的期待，特色和多元已经成为各高校办学的一种趋势。为了适应高校教学新趋势，响应《指南》提出的大学英语教学要求，我们编写了这套大学英语拓展教程系列，包括《水产英语》《船舶与海洋工程英语》《航运英语》和《人文英语》等四种，以满足海洋类高校不同专业学生拓展英语知识的需要，以期实现学生的“发展目标”。本系列教材旨在突显海洋类高校的办学特色，让学生通过英语拓展课程的学习，顺利过渡到专业英语的学习。因此，我们这套系列教材可以视为通用英语与专业英语的“衔接体”。

《水产英语》是为水产类专业学生完成通用大学英语学习之后，深入专业英语学习之前编写的英语学习教材。本教材内容涉及水产行业各个领域，主要包括：水产史、渔业资源、渔具、渔业环境、水产养殖、海洋生物、鱼病防治、渔业法规、渔业科学和渔业管理与发展等话题，让学生畅游在英语世界里学习水产知识。《船舶与海洋工程英语》是为船舶与海工类专业学生在通用大学英语学习结束之后、深入学习专业英语之前的英语拓展而编写的教材。本教材内容主要包括：船舶与海洋工程专

业简介、船舶史、船舶类型、船舶设计、船舶制造、船舶结构、船舶安全、船员、船舶下海和近海结构等话题。《航运英语》主要面向航运类专业本、专科学生而编写。教材内容涉及航运业的各个领域,主要包括:航运业简介、提单、货运服务、商务合同、商业信函写作、港口国监督、航海日志、进出港、货物装卸、应急救援、甲板安全、海上通信等。《人文英语》主要是为人文社科专业的学生学完了通用大学英语之后而编写的人文英语教程。本教材涉及 12 个单元主题,包括节气、中国传统节日、茶文化、中国著名的旅游景点、体育运动、中国古代人民的时尚生活和服装演变、中国古代教育的演变和科举考试制度、中国的汉字与文房四宝、唐诗宋词的英译学习、古代士大夫的琴棋书画生活、酒文化和中医养生等。

在新形势下,大学英语的教学如果仅仅停留在通用英语上而不与专业有机衔接,是不能适应国家的发展和高校办学国际化趋势的。要使语言发挥其工具性作用,有必要将其与专业结合起来,从而体现语言的载体功能。我们编写这套大学英语拓展教程系列,就是为了海洋类高校各专业学生在完成了通用大学英语学习之后,学习与专业相关的英语科普知识,不仅能巩固和进一步提高英语语言技能,也能在学习语言的同时,增加学生专业知识,可谓“一石二鸟”之功。因此,本教程系列教材的学习有助于促进学生增强实际使用英语的能力。

本教程系列教材兼顾了英语学习的统一性与多样性、自主性与联合性。采用统一的体例,统一的单元数,统一的目的要求,充分体现了海洋类高校的办学特色,将英语的工具性和人文性有机地结合在一起,同时又兼顾通用性。

我们希望学生通过本教程系列教材的学习，在英语的海洋中获取各自所需的更多专业知识，同时又能用英语表达各自的专业知识，让自己的知识水平更高，人生更丰富，世界更精彩，视野更开阔，融入这个全球化的现代社会，使自己真正成为具有国际视野的崭新一代。

大学英语拓展教程系列总主编

陆国飞

2016.4

前 言

随着高校教学改革的深化、创新机制的提高，社会对大学英语人才培养也给予了新的期待，特色与多元已经成为各高校办学的一种趋势。此外，中学英语教学水平的提高和高考英语的改革让“90 后”的英语学习者在认知习惯上起了很大的变化。大学英语的教学如果仅仅停留在通用英语上而不与专业有机衔接，学生就会缺乏英语的实际应用能力，也是不能适应新形势下国家的发展和高校办学国际化趋势的。为此，我们编写大学英语拓展系列教材，旨在凸显海洋类高校的办学特色，让学生通过英语拓展课程的学习，顺利过渡到专业英语的学习。因此，我们的这套系列教材可以视为大学通用英语与专业英语的“中间体”。

《水产英语》是大学英语拓展系列课程之一，是为水产类专业学生在学习完通用大学英语之后，在深入学习专业英语之前的英语学习而编写的教材。水产专业学生在完成通用大学英语学习的基础上学习与水产专业相关的英语科普知识，不仅能进一步提高英语语言技能，也能在学习语言的同时，增加学生水产知识，可谓“一石双鸟”之功。因此，本教材的学习有助于促进学生增强实际使用英语的能力。

本教材共 10 个单元，每单元的由两篇主体课文和练习组成。编写的体例如下：

1. 单元标题
2. 单元简介
3. Text A
4. Text A 课文词汇表
5. Text A 课文注释
6. Text A 课文练习

7. Text B

8. Text B 课文词汇表

9. Text B 课文注释

10. Text B 课文练习

每课课文都标有段落号，课文词汇表按照课文出现的先后顺序排列，方便学生阅读或做练习时查阅。Text A 的练习设计旨在帮助学生巩固本课词汇和内容知识，包括（1）正误判别、（2）问题解答、（3）词语填空、（4）运用本课所学词语进行单句翻译、（5）专业词汇巩固练习、（6）英语段落汉译；（7）话题讨论、（8）写作训练。Text B 的练习设计旨在培养学生阅读理解能力，主要包括（1）问题解答、（2）选择题。书后附有本册教材的词汇总表，并标出每个单词的所在单元与课文。

本教材课文材料主要选自英语国家的专题网站有关水产领域的普及性知识，并经过编者的改写而成，语言通俗地道，内容涉及水产行业各个领域，主要包括：水产史、渔业资源、渔具、渔业环境、水产养殖、海洋生物、鱼病防治、渔业法规、渔业科学和渔业管理与发展等话题，让学生在英语环境中学习水产知识。

本教材共有 6 位教师参与编写，第一单元由陆国飞老师编写；第二单元和第八单元由陈璟璟老师编写；第三单元和第四单元由卢琳老师编写；第五和第六单元由龚敏杰老师编写；第七单元由邱俏宏老师编写；第九和第十单元由朱峰老师编写。

在本教材的编写过程中，我们得到了浙江海洋大学学校领导和教务处以及海洋出版社领导与编辑的指导与关心，在此，我们谨向他们表示由衷的感谢。同时我们对为本教材提供课文材料的网站和作者，编著者总是怀着崇敬之情予以谢忱。

由于时间仓促，加上水平有限，本教材难免存在这样那样的问题，我们真诚希望同行专家和广大师生批评指正。

编者

2016 年 4 月

Contents

Unit One	History of Fishing	1
Text A	Ancient Fishing and Modern Fishing	1
Text B	Recreational Fishing	12
Unit Two	Fishery Resources	20
Text A	Ocean Fisheries	20
Text B	Tuna Resources.....	30
Unit Three	Fishing Techniques and Fishing Tackle	39
Text A	Fishing Techniques.....	39
Text B	Fishing Tackle	48
Unit Four	Fishing Environment.....	55
Text A	Climate Change Impacts on Fisheries and Aquaculture.....	55
Text B	Environmental Impact	66
Unit Five	Aquaculture.....	73
Text A	Why Farmed Salmon Is Becoming a Viable Alternative to wild-caught.....	73
Text B	Reproduction Innovations.....	84
Unit Six	Marine Organism	91
Text A	Secret Voyages of Leatherback Turtles Revealed Using Transmitters.....	91

Text B	Whales, Dolphins, and Porpoises	99
Unit Seven	Prevention and Treatment of Fish Diseases.....	108
Text A	Fish and Parasitic Infection	109
Text B	Fish Diseases and Parasites	119
Unit Eight	Fishing Laws and Regulations	127
Text A	International Convention for the Regulation of Whaling.....	127
Text B	Convention on Fishing and Conservation of the Living Resources of the High Seas	139
Unit Nine	Fisheries Science.....	147
Text A	How is Fisheries Science Used?.....	147
Text B	What Are the Departments of Fisheries Science?	157
Unit Ten	Fishery Management and Development.....	164
Text A	Fisheries Management.....	164
Text B	Fishing for Tomorrow:	173
Glossary		183
References		217

Unit One History of Fishing

*Fishing is an activity of catching fish. It is an ancient practice **dating back** at least 40,000 years. Since the 16th century **fishing vessels** have been able to cross oceans **in pursuit of** fish and since the 19th century it has been possible to use larger vessels and in some cases process the fish on board. Fish are normally caught **in the wild**.*

*The term fishing may be applied to catching other **aquatic animals** such as **shellfish**, **cephalopods**, **crustaceans**, and **echinoderms**. The term is not usually applied to catching aquatic **mammals**, such as **whales**, where the term whaling is more **appropriate**, or to **farmed fish**. In addition to providing food, modern fishing is also a **recreational sport**.*

*According to **FAO**¹ statistics, the total number of fishermen and fish farmers is estimated to be 38 million. Fisheries and **aquaculture** provide direct and indirect employment to over 500 million people. In 2005, the worldwide **per capita consumption** of fish captured from **wild fisheries** was 14.4 kilograms, with an additional 7.4 kilograms harvested from **fish farms**.*

Text A Ancient Fishing and Modern Fishing

1. The ancient River Nile was full of fish; fresh and dried fish were a **staple food** for much of the population. The Egyptians invented various implements and methods for fishing and these are clearly illustrated in tomb scenes, drawings, and **papyrus** documents. Simple reed boats served for fishing. Woven nets, **weir** baskets made from willow branches, harpoons and hook and line were all being used. By the 12th dynasty, metal hooks with **barbs** were being used. As is fairly common today, the fish were **clubbed** to death after capture. **Nile perch**, **catfish** and **eels** were among the most important fish. Some representations hint at fishing being pursued as a pastime.

2. Fishing scenes are rarely represented in ancient Greek culture, a reflection of the

low social status of fishing. There is a wine cup, dating from 500 B.C., which shows a boy crouched on a rock with a fishing-rod in his right hand and a basket in his left. In the water below there is a rounded object of the same material with an opening on the top. This has been identified as a fish-cage used for keeping live fish, or as a fish-trap. It is clearly not a net. This object is currently in the Museum of Fine Arts, in Boston

3. Oppian of Corycus, a Greek author wrote a major **treatise** on sea fishing, the *Halieutica* or *Haliutika*. This is the earliest such work to have survived intact to the modern day. Oppian describes various means of fishing including the use of nets cast from boats, **scoop nets** held open by a hoop, spears and tridents, and various traps “which work while their masters sleep”. The Greek historian Polybius (203 B.C.–120 B.C.), in his *Histories*, describes hunting for **swordfish** by using a harpoon with a barbed and **detachable** head. Pictorial evidence of Roman fishing comes from mosaics which show fishing from boats with rod and line as well as nets. Various species such as **conger**, **lobster**, **sea urchin**, **octopus** and **cuttlefish** are illustrated.

4. In India, the Pandyas, a classical Dravidian Tamil kingdom, were known for the pearl fishery as early as the 1st century B.C.. Their seaport Tuticorin was known for deep sea pearl fishing. The Paravas, a Tamil caste centered in Tuticorin, developed a rich community because of their pearl trade, navigation knowledge and fisheries.

5. The Moche people of ancient Peru depicted fishermen in their **ceramics**.

6. From ancient representations and literature it is clear that fishing boats were typically small, lacking a mast or sail, and were only used close to the shore.

7. In traditional Chinese history, history begins with three semi-mystical and legendary individuals who taught the Chinese the arts of civilization around 2800B.C.–2600 B.C.: of these Fu Hsi was reputed to be the inventor of writing, hunting, trapping, and fishing.

8. **Gillnets** existed in ancient times as archaeological evidence from the Middle East demonstrates that in North America, aboriginal fishermen used **cedar** canoes and natural fiber nets, e.g. made with nettles or the inner bark of cedar. They would attach stones to the bottom of the nets as weights, and pieces of wood to the top, to use as floats. This allowed the net to suspend straight up and down in the water. Each net would be suspended either from shore or between two boats. Native fishers in the Pacific Northwest, Canada, and

Alaska still commonly use gillnets in their fisheries for **salmon** and **steelhead**.

9. Both drift gillnets and set nets also have been widely adapted in cultures around the world. The antiquity of gillnet technology is documented by a number of sources from many countries and cultures. Japanese records trace fisheries exploitation, including gillnetting, for over 3,000 years. Many relevant details are available concerning the Edo period². Fisheries in the Shetland Islands³, which were settled by Norsemen during the Viking era⁴, share cultural and technological similarities with Norwegian fisheries, including gillnet fisheries for **herring**. Many of the Norwegian immigrant fishermen who came to fish in the great Columbia River salmon fishery during the second half of the 19th century did so because they had experience in the gillnet fishery for **cod** in the waters surrounding the Lofoten Islands⁵ of northern Norway. Gillnets were used as part of the seasonal round by Swedish fishermen as well. Welsh and English fishermen gillnetted for Atlantic salmon in the rivers of Wales and England in **coracles**, using hand-made nets, for at least several centuries. These are but a few of the examples of historic gillnet fisheries around the world.

10. Gillnetting was an early fishing technology in Colonial America, used for example, in fisheries for Atlantic salmon and **shad**. Immigrant fishermen from northern Europe and the Mediterranean brought a number of different adaptations of the technology from their respective homelands with them to the rapidly expanding salmon fisheries of the Columbia River from the 1860s forward. The boats used by these fishermen were typically around 25 feet (8 m) long and powered by oars. Many of these boats also had small sails and were called "row-sail" boats.

11. At the beginning of the 20th century, steam powered ships would haul these smaller boats to their fishing grounds and retrieve them at the end of each day. However, at this time gas powered boats were beginning to make their appearance, and by the 1930s, the row-sail boat had virtually disappeared, except in Bristol Bay, Alaska, where motors were prohibited in the gillnet fishery by **territorial law** until 1951.

12. In 1931, the first powered drum was created by Laurie Jarelainen. The drum is a circular device that is set to the side of the boat and draws in the nets. The powered drum allowed the nets to be drawn in much faster and along with the faster gas powered boats,