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Alwyne Wheeler and Andrew K. G. Jones
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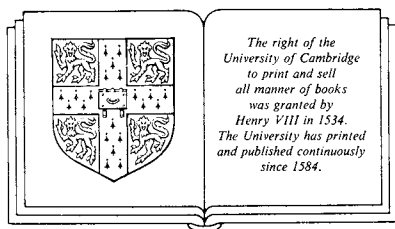
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PREFACE

Fishes have been an important source of food for hominids since at least Upper Pleistocene times. Unlike mammals and birds, their exploitation has mainly been by the capture of free-living individuals, the cultivation of fishes (although an ancient art) having been on only a local scale, chiefly in Asia and Europe, until the middle years of the twentieth century. The capture of free-living animals, often indiscriminately as to kind or size, has resulted in a greater diversity of species being used for food than is the case for other vertebrate groups. As there are more species of fishes than all mammals, birds, reptiles and amphibians worldwide (and generally within local faunas also), the problem of identifying fish remains in archaeological sites is complicated both by the wide range in size of fishes represented and by the number of species involved.

The study of fish remains has much to offer environmental archaeologists, especially those concerned with coastal, riverine and lacustrine sites. Properly handled and analysed, fish bones can provide information on the species exploited, and from a knowledge of the habitats of the fishes, the archaeologist can advance hypotheses concerning the methods used to capture the fish and the level of technology required to sustain such methods. Within limits, fish remains can also be used to establish the numbers and sizes of individuals, their body weight and sometimes seasonality of capture.

This book contains chapters concerned with the anatomy of fishes, in particular the hard structures of relevance to the archaeologist, the preparation of comparative skeletons of specimens and their curation, methods of recovery of fish remains, discussions of taphonomy, and aspects of fish ecology. The second chapter includes a world overview of the families of fishes of potential importance for food. Other topics discussed involve the estimation of size from the hard remains of fishes, the calculation of seasonality of capture from both ecological information and the analysis of fish growth, as well as the interpretation of fishing activity based on the analysis of fish remains.

The main thrust of the book is to give practical information as simply as possible. This is not a manual which puts forward theoretical approaches to fish archaeology using techniques culled from fisheries research. Such techniques are certainly valid in their own discipline but are based on the collection of data from thousands of specimens over a short period of time. Their

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relevance to archaeological fish remains, which are often damaged, have a wide temporal distribution, and are rarely available in statistically significant quantity, is dubious. For this reason such techniques and methods are merely outlined here and their potential use to archaeologists is indicated, but the archaeologist is warned not to expect too much of them. While many of the examples used in this book are from European sites and fishes, the application of the information, especially of methods and techniques, is worldwide.

Above all, we hope that this book will prove useful to environmental archaeologists and will encourage and enable others to discover the fascination we have experienced during our dealings with the remains of ancient fishes.