Visual Neuroscience (2007), **24**, 231. Printed in the USA.

DOI: 10.1017/S0952523807070332

General editorial

In the past two years the field of fish vision research has lost three central figures, Bill McFarland, Bill Muntz, and Joe Bilotta. This volume of Visual Neuroscience is dedicated to them. Since the inception of this volume, Henk Spekreijse and Adam Locket, who made significant contributions to fish vision, have also passed away; they are also remembered.

To the outsider it might seem odd that there even is a field such as "Fish Vision." An interest in vision is easily understood, because virtually all behaviors are a response to a visual stimulus. Thus, vision is central to biology. Furthermore, understanding the visual process provides, perhaps more than any other branch of neurobiology, an insight into how the brain processes information. But why study the eyes of fish?

First, there are around 25,000 species of fish making them by far the largest vertebrate group, accounting for over 50% of all vertebrale species.

Furthermore, fish are found in a great diversity of environments ranging from the red peat lochs of Scotland, the green coastal waters of the English Channel, the blue surface sunlit waters of the Caribbean, to the relative darkness of the deep-sea. Fish therefore live in almost every conceivable optical environment and much can be learnt by seeing how they have adapted to this diversity. The aquatic environment offers a natural laboratory for vision research.

Finally, if your ultimate aim is to illuminate human vision, fish have much to offer. In most respects the fish eye is very similar to that of other vertebrates, including humans. It is therefore often used as a model organism because it offers many advantages over its warm blood cousins being, for example, amenable to *in vitro* electrophysiology.

Fish vision therefore encompasses many areas, from basic electrophysiology, detailed morphology, and visual ecology to models of visual recovery following retinal damage. All of these, and more, are represented in this volume.

Ron Douglas
City University
Department of Optometry
Northampton Sq
London, United Kingdom
r.h.douglas@city.ac.uk