Neil Shubin Your Inner Fish

The amazing discovery of our 375-million-year-old ancestor

> 'This would be Darwin's book of the year'

> > SUNDAY TELEGRAPH

YOUR INNER FISH

A JOURNEY INTO THE 3.5-BILLION-YEAR HISTORY OF THE HUMAN BODY

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PREFACE

This book grew out of an extraordinary circumstance in my life. On account of faculty departures, I ended up directing the human anatomy course at the medical school of the University of Chicago. Anatomy is the course during which nervous first-year medical students dissect human cadavers while learning the names and organization of most of the organs, holes, nerves, and vessels in the body. This is their grand entrance to the world of medicine, a formative experience on their path to becoming physicians. At first glance, you couldn't have imagined a worse candidate for the job of training the next generation of doctors: I'm a paleontologist who has spent most of his career working on fish.

It turns out that being a paleontologist is a huge advantage in teaching human anatomy. Why? The best road maps to human bodies lie in the bodies of other animals. The simplest way to teach students the nerves in the human head is to show them the state of affairs in sharks. The easiest road map to their limbs lies in fish. Reptiles are a real help with the structure of the brain. The reason is that the bodies of these creatures are often simpler versions of ours.

During the summer of my second year leading the course, working in the Arctic, my colleagues and I discovered fossil fish that gave us powerful new insights into the invasion of land by fish over 375 million years ago. That discovery and my foray into teaching human anatomy led me to explore a profound connection. That exploration became this book.