The first edition in English of Willughby's posthumous *Ornithology*.

Willughby, Francis. *The Ornithology*. London: Printed by A.C. for John Martyn, 1678. 14 1/2 inches (370 mm), 460 pp. plus 80 plates [78 pp.].

Francis Willughby (1635–1672) was a typical naturalist of his time, one who would find no congenial niche in today's university. He sinned against the twin commandments of modern academia: find an excruciatingly narrow specialty and "publish or perish." Willughby's interests were sprawling, extending well beyond natural history to medals and antiquities, and he left behind his life's work in scattered manuscripts—a few reports from his hand had appeared toward the end of his life in the *Philosophical Transactions* of the Royal Society, of which he was an original member.

Willughby came from a prosperous landed family. His meeting with the great naturalist John Ray (1627–1705), his tutor at Trinity College Cambridge, was decisive. The two traveled, sometimes with others, collecting and observing the natural world through most of England, Wales, and the Isle of Man. They later visited the European continent: the Netherlands, Germany, and Italy. Willughby went to Spain alone, and only his early death prevented the realization of an intended trip to North America.

John Ray was an all-round naturalist, although especially well versed in botany; Willughby was particularly expert in zoology but he, too, had no specialty. Among the surviving family manuscripts, deposited at the University of Nottingham Library, are vocabularies of many languages and dialects, taken down from native informants on his travels, and a folio volume on games and popular amusements: football, bowling, shuffleboard, cribbage, and simple children's games.

Willughby died at his family home at the early age of 36, leaving behind a widow and three children (who eventually chose to spell the name Willoughby), and extensive collections. Having resigned his fellowship, Ray was in residence, and as one of his friend's trustees, spent the next three years tutoring the children—he insisted that they

memorize lists of Latin names for birds, plants, and fishes—and editing Willughby's manuscripts.

The treatises on birds and fishes appeared in 1676 and 1686; Willughby's work on insects was eventually published by Ray's own biographer in 1710. The first of the three appeared initially in Latin, as *Ornithologiae libri tres*. An enlarged English edition (reproduced here) under the title *The Ornithology of Francis Willughby ... in Three Books* followed in 1678: it included new sections on seabirds and falconry. Two centuries later, Alfred Newton, the first professor of zoology at Willughby and Ray's old university, declared the book to be "the foundation of scientific ornithology." It owed much to the work of Ray, who added references and assembled the detailed descriptions into a methodical whole. Willughby had classified his birds by habit; Ray expanded this system by distinguishing species through anatomical and other differences—in plumage, or in the structure of beaks and claws. Over 230 species were described in the *Ornithology* from personal observation. Publication of the folio was subsidized by his widow: it includes 80 (on 78) plates of birds (**Spreads 235–312**), largely (and not always happily) copied from other books.

This volume is now in the Cecil H. Green Library, which comprises roughly a third of the Stanford University Libraries' 8.5 million volumes. The Green Library houses special collections amounting to a quarter million rare volumes; among the rarities are an extensive collection of Aldine editions and numerous incunables.