

"Lake Istokpoga, Florida's fifth-largest lake, covers 11 km² in Highlands County." [From Brenner et al.'s chapter in *Ecosystems of Florida*; photo by J. N. Layne]

water management problems of the Everglades. There are few other cases in the United States where the diversion of surface water for human use has been so complete and the consequences so devastating to nature.

None too soon, these books are a record of the natural history that once was Florida and the loss of that heritage wrought by the wholesale management of the landscape for human use. Both offer provocative indications of how continued poor management could ultimately lower the habitability of Florida for humans. The challenge is formidable. In Ecosystems of Florida, Myers and Ewel leave us with a sobering thought: "Take, for example, 1500 acres of farm or forest, divide it into 300 lots, dig 300 wells, plant one septic tank on each plot, and add a home for three people. You will have accommodated just one day's worth of immigrants to Florida."

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related problems, provide them with superb technical support, a good library, and tea, and top it off with a boss who is brilliant yet humble and given to asking questions rather than stating dogma.

In 1932 the Bureau began with one office, a cellar for keeping voles, and an old shed for a laboratory. Its main aim was to understand the reasons behind the fluctuations in numbers of wild animals and to develop methods of forecasting periods of abundance and scarcity. The species of interest were voles, mice, lemmings, squirrels, muskrats, beaver, lynx, and snowshoe hares. The new *Journal* of Animal Ecology began in the same year as the Bureau, with Elton as its first editor.

The early years were for Elton a mixture of science and fund-raising. The university provided moral support and space but little money. Gradually university and government funding was provided, but Elton still had to raise half of the operating funds. These years were clearly an exciting time. Crowcroft documents in a most readable manner the early work of George Leslie on life tables, Dennis Chitty on vole populations, Doug Middleton on squirrels and partridges, and Mick Southern on rabbits.

When the war began in 1939 Elton volunteered the Bureau's resources to investigate the loss of foodstuffs to vertebrate pests. The staff doubled, and research centered on the brown rat, the black rat, and the house mouse. The results were practical ecology at its best and resulted in the introduction of novel ideas into British rodent control. This work is well summarized in the three-volume *Control of Rats and Mice* (1954).

After the war Elton's interests returned to the study of animal communities. While vertebrate population dynamics remained a strong focus under the guidance of Chitty and Southern, invertebrates became the focus of more of the graduate students. Elton developed the Wytham Biological Survey at this time, which culminated in the publication of *The Pattern of Animal Communities* in 1966.

As Elton neared retirement in 1967, the future of the Bureau came under increasing doubt. The head of the department was a molecular biologist whose ignorance of ecology was exceeded only by his contempt for the subject. This mental "disease" alas has spread to other zoology departments around the world. The Bureau was closed upon Elton's retirement in 1967.

Crowcroft has done an excellent job of providing an informal history of the Bureau of Animal Population and the central role that Charles Elton played in its intellectual life. Elton's vision of ecology lives on in intellectual lineages that compensate for the sadness associated with the demise of the Bureau at the hands of lesser men. We should remember the magic of the Bureau and when possible try to emulate its success.

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Work at Oxford

Eiton's Ecologists. A History of the Bureau of Animal Population. PETER CROWCROFT. University of Chicago Press, Chicago, IL, 1991. xx, 177 pp., illus. \$35; paper, \$14.95.

Elton's ecologists are the 85 people who worked in the Bureau of Animal Population at Oxford University from 1932 to 1967. The Bureau was a small research institute founded in 1932 by Charles Elton, the father of animal ecology. This book is an informal history of the Bureau during the critical period when ecology was in its infancy.

The Bureau was a recipe of small and beautiful science: take half a dozen good scientists, focus them on a small array of



"David Eccles collecting emerging aquatic insects from a Wytham stream. 1956." [From *Elton's Ecologists*; photograph by Denys Kempson, courtesy of Charles Elton]



"Dennis Chitty taking some fresh air while baiting rats in sewers. The King's Arms tavern nearby has caught his attention." [From *Elton's Ecologists*; courtesy of Charles Elton]