

#### History, Present Status, and Future Prospects of Avian Eggshell Collections in North America.

Bird egg collecting was formerly a popular pastime in North America, having originated as a cultural import from England during the great Victorian era of natural history. Although Audubon took a few eggs in the 1830s and 1840s, widespread hobbyist egg collecting did not really take hold in North America until the 1860s, following the issuance by Stephen Fullerton Baird, Secretary of the Smithsonian Institution, of a "call to arms" (Baird 1861). His circular listed numerous as-yet-undescribed eggs needed by the Smithsonian and detailed instructions on how to preserve them. The study of eggs, or "oology," as its adherents termed it, was at its zenith on this continent from about 1885 through the 1920s. Owing to changes in social attitudes and regulation, hobbyist egg collecting had declined markedly by the start of World War II and had completely faded from the American scene by 1970. Thus, the "oological chapter" of North American natural history lasted about a century (Kiff 1989a).

The vast majority of collectors were adolescents who took only eggs of the common species in their neighborhoods, but I have compiled biographical data for 1,200 adult collectors (1,195

males; 5 females) active at some point during the period from 1850 to 1970. Egg collecting was justified on both scientific and recreational grounds (Grinnell 1906), and many of the great lights of American ornithology, including Elliott Coues, Robert Ridgway, and Grinnell himself, collected bird eggs in their early years. T. Gilbert Pearson, a co-founder of the National Audubon Society, Audubon biologist Alexander Sprunt, Jr., and even Guy Bradley, the Florida Audubon warden whose shooting death by an egret plumer in 1905 sparked the modern Audubon movement, were all egg collectors.

Serious oologists collected and stored eggs as entire clutches, or "sets," beginning in about the 1870s. The contents were removed through a single blowhole in the middle latitudes of the eggs. Thus, a museum "egg specimen" consists only of an empty eggshell with its associated eggshell membranes. Each specimen was inscribed in permanent black ink with a collector-specific "set mark," typically consisting of such essential information as species identity (indicated by AOU number), collecting year, and number of eggs in the set. Details on collecting locality, collecting date, location of the nest, and collector name were recorded on a "data slip," a card that often contained the printed name and address of the collector. Oological preparation and curatorial techniques are discussed more fully in Kiff (1989b) and Limbert (2003).

The findings, mostly anecdotal and descriptive, of oological studies were published in an astonishing array of small journals, many short-lived (Underwood 1954). The best of this lot in the late 19th century was the *Ornithologist and Oologist*, and later important oological journals included *The Warbler*, *The Nidiologist*, *The Osprey*, and *The Journal of the Museum of Comparative Oology*, all of which contain solid descriptive information still useful to contemporary ornithologists. *The Oologist* was the longest-lived journal of the genre, though it was not the best. It was published monthly from 1884 to 1941 and was discontinued only when the hobby ran out of enough practitioners to keep it going. Other than amassing their collections, the most lasting contribution of the oologists was the A.C. Bent life histories series, which relied heavily on their field observations. Indeed, the egg measurements from the Bent volumes still survive largely intact (albeit rounded off to whole millimeters) in