WILLIAM J.L. SLADEN, 1921–2017

DAVID G. AINLEY*

H.T. Harvey and Associates, 983 University Avenue, Los Gatos, CA 95032, USA

Born in England and trained in medicine, William (Bill) Sladen first traveled to Antarctica in 1948 as medical officer and biologist for a small team of researchers at Hope Bay, a remote blizzard-swept base on the Antarctic Peninsula operated by Britain's Falkland Islands Dependencies Survey (FIDS). He sledged with dogs between study areas and once spent 17 days alone, living in a tent, after a fire destroyed the base hut, killing his companions, not long after departure of the ship on which they had arrived.

Indeed, Bill Sladen was a true scientist-adventurer, one foot in the heroic age of Antarctic exploration and the other in the newly fledging world of modern ecology. Science in itself is an adventure, and Bill recognized this. He had a keen eye for the patterns of nature. While serving as the medical officer for FIDS, he could not waste the opportunity to investigate Antarctic penguin life history and ecology. He quickly recognized that what had been written to that point about the ecology and behavior of Antarctic penguins, by adventurers such as Edward Wilson and Murray Levick of the Scott expeditions and James Murray of the Shackleton expeditions, was far too Victorian in interpretation, overly anthropomorphic, and quite wide of the mark in terms of the actual nature of these birds.

He thus embarked on setting the record straight and bringing the investigation of penguin natural history into the rapidly expanding world of modern ecology. Certainly, he had Lance Richdale's long-term study of Yellow-eyed Penguins *Megadyptes antipodes* in mind (from the 1920–30s), as well as summaries of long-term general work on seabirds by David Lack. He recognized right away that the key to understanding was marking penguin *individuals* so that they could be followed through their lifetimes, and thus he introduced banding to Antarctic ornithology. His monograph, *The Pygoscelid Penguins. I. Methods of Study, II. Adélie Penguins* (1958, FIDS Scientific Report No. 17), remains a classic and a foundation for a host of studies by other researchers, including his students. Chapter III was going to be about Gentoo Penguins *Pygoscelis papua*, for which he claimed to have even better data; unfortunately, he never got around to finishing that chapter.

The author, David Ainley (left), joined Bill Sladen (right) on a study trip in Antarctica in 2007. Photo: Lloyd Fales 2007, reproduced with permission.

Following from his FIDS and medical work, in 1961 he began a long-term banding of Adélie Penguins *P. adeliae* at Cape Crozier, Ross Island, the site of Edward Wilson's early work on Emperor Penguins *Aptenodytes forsteri* in 1910–13. The hut constructed there was called "Wilson House." This effort resulted in the first demographic study of Adélie Penguins, later published as *The Breeding Biology of Adélie Penguins* (University of California Press, 1983), authored by Bill and two of his students, including me. The demographic study of Adélie Penguins continues at Cape Crozier to this day (2017), now using the latest in mark-recapture statistical modeling with banded penguins 20 years of age and counting. That effort is key to understanding the ecology of the Ross Sea, the least perturbed stretch of ocean on the planet, through the comings and goings of an "indicator species." This work is well-positioned in the still somewhat rare assemblage of long-term studies of long-lived animals. This would not have happened without Bill's pioneering efforts and inspiration.

Bill Sladen also recognized the need to educate the public, not just other scientists. Thus, long before the British Broadcasting Corporation's nature series, he filmed and produced the documentary "Penguin City," broadcast to national and international audiences on CBS in 1970. The film depicted the natural history of Adélie Penguins at Cape Crozier. Like his printed works, his film, too, is a classic and eventually led to a sequel, "Return to Penguin City," broadcast as part of the *Wild Kingdom* program on Animal Planet channel in 2008, with Bill making a more than cameo appearance. That film has since become publicly available on DVD for classroom use as well as on YouTube. The cinematographer and producer was Lloyd Fales, who had helped Bill explore his other wildlife passion, the behavior and ecology of swans. Beginning in the late 1960s, Bill's attention was drawn to the Arctic and the waterfowl there, especially the swans. His work on swan migration and their imprinting on ultra-light aircraft led eventually to the Hollywood film "Fly Away Home." Its close-ups of various goose species flying in migration have wowed audiences the world over. Deeply devoted throughout his life to botany, Bill also made collections for the British Museum and the Smithsonian Institution of specimens from Macedonia, Siberia, Alaska, the Falkland Islands, and Antarctica.

*With contributions by Jocelyn Sladen.

Bill taught more than just biology. His philosophy was clearly, above all else, to keep going forward. Along the way in science there are many obstacles, including difficulty in writing an intelligible report, initial rejection of articles by journals, rejection of proposals for funding, difficult field conditions that change your plans, and so on. These sorts of things discourage a lot of prospective scientists from continuing to make a career of it. And I think, actually, the majority of students. Not Bill, though. His students—of which there have been few, at least in a formal sense—learned from his example to keep trying and to figure out your own path. The pathway that you initially choose will likely not be the one that you ultimately follow, but it will get you to a place where you feel fulfilled, having won the day after all.

Bill Sladen held two medical degrees—MB, BS and MD (London)—and a DPhil (PhD) in zoology (Oxford). He published over 120 scientific papers. He was the founding chair of the Baltimore Zoological Society (now the Zoological Society of Maryland); a founder of the Wildfowl Trust of North America, Grasonville, Maryland; and a founding member and president of the Antarctican Society. His awards included Member of the British Empire from King George VI, the Polar Medal from Queen Elizabeth II, and the Explorers Club Medal (Explorers Club, NY). Two mountains in Antarctica are named after him, a fitting tribute to a man who so profoundly changed the world of Antarctic studies.