

to become well-informed naturalists" (page 135). More often than not it was the local minister of the Church of England who was guilty of massive slaughter of almost anything that flew. Jenks tells of the zealous collector who, while walking without a gun, saw an unfamiliar bird, knocked on the door of the nearest cottage, borrowed a gun from the stranger, and shot what proved to be a beautiful Night Heron in full breeding plumage.

Then there was the mercenary side of bird-killing. Village markets throughout Britain were replete with waders, marsh birds, even song birds, all of them to be purchased for the table. They fetched a surprisingly high price.

Quite apart from culinary sales, both birdskins and eggs were also available. Those interested in the distribution of bird species were apt to go to their local market and purchase the rare birds available for sale. In 1878 a Gyrfalcon skin sold for 50 shillings and a Golden Eagle egg for 25 shillings; a Passenger Pigeon skin cost only 6 shillings. As evidence of the extent of this trade, the relatively small town of Barnstaple supported two full-time bird-stuffers.

We can learn from some of the mistakes made in Devon. Many specimen records were made worthless by inadequate preservation, missing date and locality labels, and some were unknowingly brought by ship from offshore.

Throughout the book there is evidence of friction between those who collected birds' eggs and study skins and those who used the new field glasses to observe birds in the wild. The latter slowly and gradually came into the ascendancy after 1900.

We meet many interesting men, but I will mention only two. Colonel George Montagu, who wrote his landmark *Ornithological Dictionary* in 1802, was Devon's first important ornithologist; he sorted out the differences between the Montagu Harrier and the Hen Harrier, thus having his surname applied to the former. The first imperfect beginnings of a book to be devoted entirely to Devonshire birds was written by Andrew Tucker in 1809; only two of the proposed 24 parts appeared in print. Surprisingly, it was not until 1916 that Catharine Hodgins became the first Devon woman to contribute bird observations for publication.

Lists of spring migration dates compiled from 1840 to 1845 indicate that birds now arrive much earlier, evidence of climatic change. Some notable sightings include a flock of eight Great Bustards in 1870, never to be repeated. The Eurasian Collared-Dove first appeared in Devon, on Lundy in May 1961, only six years after the first pair had appeared in Norfolk; thus the spread across Europe preceded its recent spread across North America.

Equally interesting are occasional accounts of unusual happenings. In the winter of 1928-29, Water Rails in desperation entered into houses to take bread off tables. A peregrine found dead near its eyrie on Lundy in 1963 proved by retrospective analysis, once Derek Ratcliffe discovered the causative role of DDT and other organochlorine compounds, to be "the most chemically-contaminated individual ever discovered." (page 334).

I found the final chapter, on bird-ringing, of particular interest. David Lack, then a schoolmaster at Partington in Devon, prior to his distinguished career as a professor at Oxford University, ringed 119 adults and 121 nestling Robins on one leg and applied two coloured celluloid rings to the other leg. Many robins remained from year to year, the oldest persisting through all four years of his study. Not one was recorded outside his study area of twenty acres. His famous book, *The Life of the Robin*, told what he learned about individual robin territories and behaviour.

Ringling changed forever when the first shipment of 100 mist nets arrived from Japan in early 1956. A formal ringling station, using these nets, opened at Slapton in 1960. Jenks, a ringer himself, concludes by saying (page 390) that "ninety years of ringling in Devon has provided us with more knowledge of the county's birds than all other ornithological pursuits put together."

In summary, this book constitutes a fine and lasting contribution to the history of ornithology. Learning about past excesses can give us perspective and perhaps help us to prevent similar but different errors in future. Its widest readership will undoubtedly be in Great Britain.

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Mapper of Mountains: M. P. Bridgland in the Canadian Rockies, 1902-1930

By I. S. MacLaren, with Eric Higgs and Gabrielle Zezulka-Mailloux. University of Alberta Press, Edmonton, Alberta. 2005. 295 pages. \$39.95 Can. Cloth.

This book, well written, artistically presented, and superbly illustrated, explains the history of photographic mapping in the Canadian Rockies. Complicated technical processes are clearly explained. As one would expect from Ian MacLaren, the text is enlivened by the poetry of Robert W. Service, Bliss Carman

and, surprisingly, the famous Scots prose author, Sir Arthur Conan Doyle. Serious readers will appreciate the detailed information in the copious footnotes.

The subject, Morrison Parsons Bridgland (1878-1948), sometimes called Morris, but more often known as M. P., was exceedingly modest. There are no known photographs of him alone. Born on a farm on the northern outskirts of Toronto, M. P. studied engineering at the University of Toronto, and then was hired

as an apprentice land surveyor. He was remarkably fit, with incredible endurance; he once climbed 7600 feet between 2 a.m. and 11 p.m. On another occasion he spent five hours ascending the glacier on Mount Purity, but was able to glissade down in 12 minutes. He was the first to climb to the peak of 55 different mountains, and took photographs from each.

Difficult and dangerous climbs were routine. Contending with bears and snowstorms, and living frugally, M. P. became one of the foremost phototopographical surveyors anywhere in the world, taking more photographs of higher quality than anyone before him. He carried a 35-pound camera up steep mountainsides in its mahogany box, fitted into a leather case. The photographs were exposed on fragile large glass slides. An assistant carried the transit instrument (theodolite) and the tripod. Since photographs at the standard f 32 stop required a shade over the lens, a filter, and exposures of up to three seconds, absolute immobility had to be achieved in spite of insecure footing and howling winds. On each mountain top, they built a cairn, then took exquisite care in leveling the camera to define the horizon and obtain photographs in every direction, but especially to show cairns on adjacent peaks, so that angles between them could be measured precisely. A tent with absolute darkness became the darkroom to develop a few test exposures each time, but the other exposed plates were carried down the mountain side and shipped "at great expense" to Ottawa for development the following winter. Precise mathematically, there was also an obvious artistic dimension to Bridgland's work. In his Calgary office each winter, the photographs were used to construct accurate topographical contour maps. Including expenses for field and office work, Bridgland's surveys were done for half the price of those completed by others, in Jasper park for only \$4.20 per square mile.

One of Bridgland's important achievements was as a founder and chief mountaineer of the Alpine Club of Canada, helping with the society's first three summer camps and writing reports for the new *Canadian Alpine Journal*. Another memorable achievement, in 1917, was his 97-page pamphlet, co-authored by Robert Douglas, secretary of the Geographic Board of Canada, *Description of and Guide to Jasper Park*. This well-written pamphlet (the design template for MacLaren's book) opened with Sir Arthur Conan Doyle's poem, the Athabasca Trail. It contained photographs of mountains, mammals and flowers, but most notably, Bridgland's striking photograph of Mt. Edith Cavell, named

for the Canadian nurse shot by the German Army in World War I. The pamphlet sold for fifty cents and was reprinted many times; extant copies today fetch two hundred times the initial purchase price. A pack of six Bridgland topographical survey maps of Jasper park was also for sale, 90 cents unmounted, or three dollars mounted.

On occasion, Bridgland was treated badly by the government bureaucracy in distant Ottawa. His party often worked seven days a week, and sometimes eighteen hours a day, but a civil servant in Ottawa, perusing Bridgland's diary, noted that he had once taken one weekday off, and docked him a day's pay. At 52 years of age, after thirty years of service, Bridgland learned that his position of Surveys Engineer, Grade 4, had been abolished by the Bennett government. On 12 May 1931 he was informed that his firing would be effective on 20 May, and that he would receive only three months of retirement leave. He never fully recovered from this treatment, but the Alpine Club of Canada awarded him the prestigious Silver Rope of Leadership.

M. P. retired to Toronto where he died of leukemia in January 1948. His wife, Mary, survived another quarter century. His older son, Charles, graduated in electrical engineering from the University of Toronto. His younger son became Brigadier General Edgar Bridgland of Canadian Aviation Development fame.

In 1996, Jeanine Rhemtulla, a graduate student at the University of Alberta, began a study to re-photograph the vistas taken by Bridgland, to learn what changes had taken place. This Rocky Mountain Repeat Photography Project attracted additional helpers, including the two junior authors of this book. Photographic plates long thought to be lost were unearthed by deep historical sleuthing – and are now available for everyone to see on the web, <http://bridgland.sunsite.ualberta.ca/index.html>. The climax of this book is a series of photographs comparing Bridgland's 1915 photographs with those taken over 80 years later. They demonstrate how glaciers have receded and forests expanded over that long time frame.

Not only is this biography at its finest, the book is a perfect present for those interested in geography, mountains, climate change, or photography. Read it in preparation for a visit to Jasper (especially), or Banff.

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