

very dangerous, the two sailing ships entirely dependent on the captains' skills and response to circumstance. They eventually circumnavigated the ice shelf, working mostly at sea in the area now named after Ross, with Hooker turning his botanical eye to seaweeds and pelagic organisms, but calling also at Franklin and Possession islands, Campbell and Auckland islands, as well as the Falkland Islands, Prince Edward and Crozier islands, and then Isle Kerguelen, where he collected tussock grass and the curious Kerguelen cabbage, good for scurvy but a poor substitute for spinach. The expedition touched on Graham Land before making for the Cape of Good Hope and home. It was utterly thrilling, utterly terrifying. Although the ships were as well reinforced as Victorian shipwrights could contrive, on one occasion the two nearly collided when dashing between floes. But Hooker saw his penguin and collected thousands of plants, the foundation for years of work on his return. Some of these plants were unwilling sacrifices to science: Hooker discovered that he had to sit on lichen-encrusted rocks for 20 minutes in order to warm them up sufficiently to collect a sample. His letters home provide a fascinating account of early Antarctic adventure that will stir the heart of any *Polar Record* reader.

Ice also drew him to the Himalayas in 1848, where he collected alpine plants and rhododendrons for three years, bringing back the beautiful blue and golden *Meconopsis* (Himalayan poppy) and cartloads of rhododendrons that became the basis of all our modern garden cultivars. This too was pioneering work. He travelled partly with Thomas Thomson, with whom he wrote an unfinished *Flora indica* (1855), and partly with Andrew Campbell, with whom he was briefly imprisoned in Sikkim. Hooker liked to say afterwards that Britain would never have annexed Sikkim without his uncomfortable spell in prison, accused of being a spy; nor would he have survived without the fruit cake smuggled to him by Mrs Campbell, along a line of friendly sherpas. He published several fine illustrated works depicting the plants he found, and a less successful *Himalayan journals* (1854). Two of the most beautiful species of rhododendron that he discovered were named in gratitude after Thomson and Campbell.

His career was thereafter notable for consolidating Kew's position as a pre-eminent centre of colonial botany, masterminding the plantation economy of the British empire and encouraging high-level taxonomic research. He published prolifically in scientific journals, ranging widely over the entire fields of systematics, geography, morphology, and palaeontology, and took a prominent part in supporting his friend Darwin's evolutionary views. At this point, he also began a lifelong undertaking with George Bentham to re-examine the whole botanical kingdom for a *Genera Plantarum*. His own research was very diverse, but he continued a long-term interest in the physiology and distribution of Arctic-alpine plants.

Although his time was increasingly occupied with Kew, Hooker afterwards travelled in Syria, where he investigated the Cedars of Lebanon. He went to the Atlas

Mountains in Morocco in 1871, yearning to touch the snowline again, with ice caking his beard. A similar love for the mountains took him to the Rockies in Colorado in 1877, where he collected high-altitude plants that found their way into his important work on plants of the Arctic Circle. Desmond reproduces a period photograph of the exploring party in their camp, with all the flunkies and trappers, plus two wives and a coffee pot, that nineteenth-century travel entailed.

Hooker's last years were dedicated to administrative matters, but he managed to sit on several Royal Society committees and panels concerned with further polar research. He helped frame the scientific programme for the *Challenger* expedition, and lived long enough to contribute to the plans for Captain Scott's first foray to the south in *Discovery*. He was buried in the Anglican church on Kew Green, where a memorial plaque incorporates some of his favourite blue-and-white Wedgwood ware. It is very good to see this interesting man brought so vividly to life by Ray Desmond. The book deserves great success. (Janet Browne, Wellcome Institute for the History of Medicine, 183 Euston Road, London NW1 2BE.)

BIRDS OF SOUTHERN SOUTH AMERICA AND ANTARCTICA. Martín R. de la Peña and Maurice Rumboll. 1998. London: Harper Collins. 304 p, illustrated, soft cover. ISBN 0-00-220077-5. £19.99.

Despite being published as a Collins Illustrated Checklist, this book is a field guide to the birds of the southern cone of South America. The northernmost boundary of coverage moves eastwards from the northern extremity of Chile. Then, in Bolivia's Santa Cruz province, this boundary turns southeast, brushing the northeast frontiers of Paraguay, before hitting the Atlantic coast of Brazil about five degrees south of São Paulo. Thus coverage extends to all of Argentina, Chile, Uruguay, and Paraguay, as well as the Antarctic Peninsula. Also included are southern Bolivia and the extreme southeast of Brazil. More vividly, the coverage extends from the waterless gravelly barrens of the Atacama desert to the lush rainforest of Misiones to the magnificent ice-caps bordering the Beagle Channel. The treatment in one volume of the 1000 or so bird species living in the region is the book's strength.

Particularly for the roving visitor from farther north, the checklist is more useful, because it is more comprehensive, than either of the obvious competitors, Narovsky and Yzurieta's *Birds of Argentina and Uruguay* or Araya and Millie's *Guía de campo de las aves de Chile*.

In fact this book is based on the 1992 Spanish *Guía de las aves argentinas*, a six-volume work by de la Peña that is here compressed into field-guide format. The plates are opposite the relevant text, which is generally informative and accurate, if necessarily brief. Distribution maps are sandwiched at the end. They are clear enough, but I failed to find any legend to guide me through the different styles of shading. However, the fact that the checklist is based on an Argentine guide with bits added in is, at times, all too

evident. Some Chilean specialities are not illustrated (for example, *Masafuera rayadito*). Worse, some are omitted altogether (such as, grey gull).

The colour plates, arguably the key feature of a field guide, are variable. Some are excellent. The nightjars have appropriately sleepy eyes and wonderfully barred plumage. On the other hand, the storm petrels appear to have been painted from some sort of template. To judge by the plate, the species share a common shape and differ only in the distribution of black, grey, and white, and in tail shape. And the hybrid origin of the book is also evident in those plates where the species not recorded in Argentina are tacked onto a plate of Argentine species. Meanwhile, the black-and-white plates provide useful sketches of the raptors as seen from below.

Polar enthusiasts travelling south to Antarctica would certainly be better served by Peter Harrison's *Seabirds: an identification guide*. But, for now, the de la Peña checklist is the best single-volume field guide to tote across the pampas, the vineyards, and the Patagonian plains. (M. de L. Brooke, Department of Zoology, University of Cambridge, Downing Street, Cambridge CB2 3EJ.)

BILINGUAL EDUCATION IN THE NORTH. Erich Kasten (editor). 1998. Münster, New York, München, Berlin: Waxman Verlag. xiv + 293 p, soft cover. ISBN 3-89325-651-2. 49.90 DM.

Those who attend the circumpolar language conferences recognize tremendous similarities in the experiences of northern minority groups, as well as some significant differences. Accounts of residential schools in Siberia strike a familiar chord with Canadian Natives, as do descriptions of becoming minorities in their own homelands as workers moved to the developing frontiers. Other stories hold out hope of a more significant role for northern minorities: the political self-determination for Greenland that helped inspire the creation of the new Canadian territory of Nunavut, or descriptions of colleges run by the Sámi in Norway or the Komi in Russia. This important collection similarly presents stories of the hopes and frustrations of bicultural education programmes in the north. It is a valuable reference for all those interested in the contemporary experiences of northern minorities and those working with similar programmes elsewhere.

The collection presents the viewpoints of a wide variety of professionals. These include a large number of educators and researchers who are active in Siberia and the Russian far east, regions that were inaccessible to western researchers and educators until recently.

There is a balance in the collection between descriptive and theoretical articles. Many of the articles describe the details of language shift and the role of language in bicultural education programmes in Russia. They include articles on the Siberian languages Selkup and Khanty, and on the languages of the Sakha Republic and of northeastern Siberia. Aikio-Puokari's article on 'Sámi language in Finnish schools' is also descriptive. Two articles focus on

the application of technical analysis and multimedia technology to language programmes. Whittaker describes his own approach to documenting Sauk, an Algonquian language spoken in the United States, while Dürr describes the production of Itelman multimedia materials in Siberia. The articles by Whittaker and Dürr will be of interest to linguists and others working with language programmes.

Most of the theoretical articles deal with the social factors underlying cultural change and language shift in the north. The article by Bobaljik articulates some of these concerns. He states: 'In short: languages do not die natural deaths. Groups of speakers of one language switch in a short period of time to become speakers of another language for reasons having to do with the social, political and economic dynamics of interactions among people.' Iutzi-Mitchell pursues the same theme, proposing that language shift reflects a relentless devaluing of one language, in relation to another. He finds that Alaskan Eskimo-Aleut languages have been displaced by English, not simply because of the negative experiences of students in residential schools, but because of the continuing devaluing of native languages. Researchers who are interested in the social factors behind language shift will find these articles useful, but they may also seek a more detailed documentation of the consolidation of 'social capital' by the majority groups.

Several authors are influenced by contemporary Marxist theorists, especially Bourdieu. In her article on Evenki residential schools, Bloch describes changes in Evenki culture and the implications for education. She states: 'Evenk elite are grappling with new types of collective identity to inscribe on youth and thereby solidify a power base. It is not by chance that the residential school serves as an important vehicle for this purpose; it has deep roots as a site for the transformation of identities in the North.' Identity is a major factor in both cultural change and language shift in every region, and Bloch gives an especially detailed analysis of how identity is created in the local context of Evenki residential schools. Her study takes into consideration the larger historical context of Soviet concepts of 'modern' and 'traditional,' as well as the post-modern context of market forces and images of Disney and MTV. In another paper, Fryer describes how Komi elites in Siberia seek to promote their identity in the context of higher education. He observes that 'The key to establishing modern Komi identity has always been language.' He raises important questions about the balance between language and cultural studies, and the degree to which native Komi are represented in these programmes.

Koester's article on imagination and play in the presentation of cultural traditions by Icelandic children also uses Marxist theory. In their writings, Icelandic children may playfully describe their grandparents as punksters or criminals in opposition to the image of solid agrarian Christians presented in the school curriculum. Playful inversions, such as those found in the writings of Icelandic students, are common in all cultures and can be vital for those who