

might assume from the end piece. Bird rich Bolivia somehow was left out of both the country summaries. Range descriptions are inconsistent, for example, for Laysan Albatross we learn that it breeds on various islands but also that it “ranges n Pacific”, whereas for Black-footed Albatross we learn only where it breeds. Similarly, Lesser Black-backed Gull, surely a fixture of the North American avifauna, is noted only for the old world. Introductions go unnoted, thus there is no indication that House Sparrow occurs in North America. While the list of extinct species is already long enough, it is perhaps optimistic to omit from it Sunda Lapwing, unrecorded from heavily populated and well-watched Java for over eighty years. On a somewhat related note, the decision to drop the symbol in earlier editions indicating that a species is “red listed” by the World Conservation Union/IUCN was unfortunate.

These flaws are largely inconsequential; however, there are also errors in the taxonomy. Many of these are being picked up in the periodic updates and the web page encourages readers to report any errors that they find. One egregious Canadian example is the Sharp-tailed Sparrow complex where *subvirgatus* and *alterus* are listed as Saltmarsh Sharp-tailed Sparrow *caudacutus*, as opposed to Nelson’s, *nelsoni*, neatly adding James Bay to the former species’ breeding range. Despite these flaws, if you are a serious ornithologist, an avid global birder, or need a one-stop reference which lists every species and subspecies of bird on the planet, this book is for you.

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The Rockfishes of the Northeast Pacific

By Milton S. Love, Mary Yoklavich, and Lyman Thorsteinson with contributions from John Butler. 2002. University of California Press, Berkeley. x + 405 pp. Cloth U.S.\$ 92.95, paper U.S.\$ 26.95.

There are a least 65 species of rockfishes (family Sebastidae) in the northeast Pacific Ocean from Mexico to Alaska including about 38 from British Columbia (my count from maps in this book and other sources, the book lists 30-35 species and its maps 31-35). It describes 2 species not given in Hart (1973) nor in Coad et al. (1995) for Canada, namely *Sebastes melanostomus* and *S. rufus*. Rockfishes are important and sometimes dominant components of the marine ecosystem, may live as long as 205 years, have been sought for food and sport, and populations are in severe decline.

The book comprises a series of introductory chapters covering the biology of rockfishes, their evolution, their names, and their fisheries. The biology sections cover habitats, reproduction, ecology of pelagic young, juvenile settlement, movements and activity patterns, age and growth, parasites, abnormalities and diseases, fisheries, and conservation. These are followed by a key to species, species accounts (169 pages), references (34 pages), locality maps, 8 appendices, a glossary, an index, and lists of reviewers, personal contributors, contributing authors, photographers, and artists.

The species accounts comprise scientific name, official common names (as recommended by the American Fisheries Society Committee on Names of Fishes), etymology, colloquial names, a distribution map, description of the fish as it appears underwater and after capture, particularly important for deepwater species that appear very different once hauled to the surface, maximum size, range both geographic and depth, life

history, fishery, remarks, and references. Remarks include taxonomic comments but also life history data are not included in that section, which seems an unnecessary separation of information.

The book has a number of strengths. There is an extensive list of references, several underwater colour photographs of most species that effectively convey the variation in these colourful fishes, comments in the species descriptions of similar species and how to differentiate them, and appendices listing such items as parasites, growth and length-weight curves, meristic characters, and the infamous head spines through which these species are often identified. Some art work is unnecessary (see below) but the gyotaku (fish prints from fresh specimens) are very beautiful and add to the argument that “rockfishes are cool”.

One criticism is that the drawing of head spine configurations is the same drawing for each species – the absence of a line from a label name to a spine indicates that spine is absent. This is not intuitively easy to follow or visualize on a fish specimen at hand. Another point needing improvement is the distribution maps. These show the species range as a yellow band along the Pacific coast. The text must be read to find any limitations on this simplistic mapping. Spot distribution maps would better indicate the scientific knowledge, backed by museum specimens, on distribution.

The keys have not been tested by me but as a museum scientist it would fall apart for me at couplet 4 where colour alone is used to separate two lines of identification (and the key goes on for 70 couplets, quite long and therefore easy to lose your way). The authors do admit that the key works best on newly caught fish, may not work with juveniles and will prove frustrating on preserved fish. Some effort could have been made to assuage the museum scientist, perhaps

by making local keys where fewer species are involved or expanding on such observations as longspine thorny-heads have “branchiostegals usually with scales” – how frequent is usually? The compilation of countable characters is simply a list of pectoral, anal and dorsal fin rays, gill rakers, lateral line pores, and vertebrae. It might be possible to analyse these as a combination of characters that can be used to key out fish or at least unequivocally narrow the choices where species diversity is high.

Most books of serious scientific bent are devoid of humour, rightly so in the judgment of some. This book is eccentric in that its strong scientific and highly technical content is interspersed with humorous asides. These will not be to the taste of all but certainly enliven the book. We learn on page 1 that the genus of rockfishes, *Sebastes* meaning “magnificent”, was coined by Baron Cuvier who was blessed with a whole series of Christian names and then adopted his late brother’s name but, being “ordered, austere, disciplined, and pompous” was unlikely to have been called “Georgie”, “Nikky” or “Cuvie” by his contemporaries (this is merely silly); on page 10 Theodore Gill is captioned as “grouchy and sowed confusion in his wake” in respect of rockfish taxonomy (too harsh?); Figure 7.4 on declining annual recruitment of juvenile bocaccio is a line graph in the best scientific tradition but has the young rockfish spilling out of a baby carriage

(drives the point home but quaint); the gap between the two cultures of science and art is no better illustrated than on page 46 where a painting of a man with a rockfish swallowing/biting the top of his head is captioned “Fish Head” (no explanation for the poor scientist); and on the last page the blurb about the senior author states that he is “A quick-tempered man of huge ego, we would not cross him if we were you” (a joke by his co-authors or a cause for concern to reviewers?).

This book is an essential, if quirky in parts, guide for anyone interested in rockfishes or their biology in the northeastern Pacific.

Literature Cited

- Coad, B. W., with H. Waszczuk, and I. Labignan. 1995. Encyclopedia of Canadian Fishes. Canadian Museum of Nature, Ottawa and Canadian Sportfishing Productions, Waterdown, Ontario. viii + 928 pages, 128 colour plates.
- Hart, J. L. 1973. Pacific Fishes of Canada. Bulletin of the Fisheries Research Board of Canada, 180: ix + 740 pages.

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Caviar: The Strange History and Uncertain Future of the World’s Most Coveted Delicacy

By Inga Saffron. 2002. Broadway Books, New York. xv + 270 pp. U.S.\$ 35.95.

There has been a recent trend to popular books on individual fish species, such as cod and shad, and now we have reached the *reductio ad absurdum* of a book on fish eggs. But these eggs form caviar, an economically important and status-rich commodity whose bearers are now facing extinction from overfishing, habitat loss, and pollution. True caviar comes from members of the sturgeon family Acipenseridae and this book details the biology and fisheries of these giant fishes in North America and, after the collapse of fisheries there, in the Caspian Sea. An idea of the value of caviar can be gained from the cost of beluga caviar in Heathrow Airport where it climbed from £76 for a 50 g tin in December 1993 to £208 in November 2000 (personal observations). A single sturgeon has produced 360 kg of caviar worth, on the above prices \$3.74 million today, although such monster fish are never seen now and caviar weights are well under 100 kg and mostly less than 50 kg.

The author is a journalist who was in Russia at the time when concern over the loss of the Caspian Sea sturgeons became a popular item in newspapers and

magazines although it had long been known by biologists that their survival was threatened. Her lack of biological knowledge is apparent in the text and a few examples can be cited here. She considers that “According to all the usual rules of evolution, the sturgeon should be extinct already” because of their long reproductive cycle (the differences between r- and k-selection are not understood). She also has the powerful tail swooshing food towards its mouth on page 31, refers on page 32 to the *Acipenser* order (rather than genus), has the beluga (*Huso huso*) listed as *Husa husa* and the Kura River as the Kuro on the only map, has sturgeons hatching in one day on page 36, has baited hooks for sturgeons as useless on page 50 (for an interesting read on catching Canadian sturgeons on hook-and-line see Glavin (1994)), and has the sturgeon’s front fins enabling the fish to speed through the water (rather than used for steering).

So while the biology in this book must be taken with a pinch of salt, just like caviar, the politics of the resource and the human failings around its management are the core of the book and a fascinating and salutary read. Perhaps one of the most curious conclusions of this book is that state-controlled fisheries in such diverse systems as those of the Soviets and the