

## THE GYRFALCON

EUGENE POTAPOV and RICHARD SALE. 2005. Yale University Press. 288 pages. Hard cover, 15 cm x 22 cm., 13 b/w drawings and 16 pages of colour photographs and maps. US\$ 45.00. ISBN 0-300-10778-1

The Gyrfalcon is the largest and—because of its extreme northern distribution—one of the least known members of the world-wide genus *Falco*. Yet, since the Middle Ages the bird has not lacked for human attention. Interest in this avian predator can be sharply divided into three categories: (1) Falconers who want to carry this “noblest” of falcons on their gloved fist and train it to hunt selected prey; (2) Scientists who collect museum skins and study the species’ taxonomy; and (3) Biologists and birdwatchers who thrill at the rare chance of observing the falcon in its natural habitat, be it arctic tundra or prairie farmland.

As revealed by their product, the authors—Potapov, head of a Falcon Research Institute in Carmarthen, England and Sale, freelance writer and photographer—fit squarely in the middle group. The contents of their very technical book are, however, wide-ranging. The main chapter headings are: Systematics; Identification and Colours; Distribution; Population; Habitat; Feeding Habits; Breeding Cycle; Seasonal Movements; Competitors; Man and Falcons; Threats and Conservation.

Reflecting the authors’ interest in taxonomy, the first chapter is 20 pages long and begins with the claim that “the story behind the species’ nomenclature is exciting.” Apparently, the current Latin name, *Falco rusticolus*, may be based

on erroneous identification by none other than Linnaeus. In his 1758 publication, *Systema Naturae*, the famous Swedish scientist seems to have confused a northern race of the Peregrine Falcon or a Northern Goshawk with the Gyrfalcon. Therefore, and on the basis of extracts from Linnaeus’ 1746-61 *Fauna Svecica*, the authors reject the use of *rusticolus*. Instead, they propose to reinstate the name *Falco gyrfalco*, which was already advanced around 1250 by Emperor Frederick II of Hohenstaufen in his classical treatise on falconry, *De Arte Venandi cum Avibus*.

There are few bird species in the world that show such high variability in plumage as the Gyrfalcon. Travelling to every country within the bird’s range, the authors examined and measured 1,865 museum skins. The results are discussed in a chapter of 40 pages including six pages with 65 small photographs of plumage details in colour. By comparison, photos of the entire (living) bird are rather few and none is larger than half a page in size. This book is definitely not a picture gallery of great Gyr photographs.

The text includes some new and fascinating insights on the subject of plumage variation. Ranging in colour from the extremes of white to almost black, feather patterns can be either plain, striped, barred or spotted. Moreover, some specimens are

asymmetric, with one wing much darker than the other or a tail that is differently marked from one side to the other. Incidentally, the terms "colour phase" or "morph," often used by birders, are not correct. The better term is "variant," because the differences are "continuous polymorphism."

The white Gyr is the most striking in appearance, at least to people. Among Gyrs, it does not seem to matter much, for grey birds mate with white ones. Apparently, like many other bird species, Gyrs use ultraviolet clues for conspecific recognition and mate selection. The question of why some Gyrs are white is not as simple as it seems. The authors argue that the white colour is not just an adaptation to camouflage against a snowy background. White Gyrs are not white in the UV part of the spectrum, and they are extremely conspicuous to other UV sensitive animals, such as ptarmigan and rodents.

The Gyrfalcon's home range is circumpolar, but the authors point out that it is not the most northerly-nesting falcon. That claim goes to the Peregrine. Generally, the Gyr stays within or near the northern tree line, and it may nest in trees as well as on cliffs. In Canada, its breeding range extends well south of sixty, as far down as the Spatsizi Plateau in British Columbia. There, its habitat is the alpine tundra, and its main prey—as elsewhere—the ptarmigan.

The book devotes 15 pages to Gyr distribution, 11 to population estimates, and 22 to habitat preference and nesting. For instance, the authors go into great detail as to the Gyrs dependency on stick nests built by ravens or other birds. Aspects of breeding behaviour, such as nest defence, feeding frequency, and

reactions to human visitors, are discussed in an equally comprehensive manner.

In the section on food habits, the authors quote field studies from Asia, Europe and North America. Canadian researchers are frequently cited, including D.M. Bird, D.A. Boag, R.G. Bromley, R.C. Cotter, R.D. Hayes, E. Kuyt, D.H. Mossop, D. Muir, J.N. Platt, K.G. Poole, C.C. Shank and J. K. Schmutz. In addition, the authors borrow heavily from the publications of American authorities, in particular T.J. Cade. The reference list is 30 pages long! One of the plus points of the book is that it also includes much Russian information formerly unavailable to western readers (T.J. Cade, pers. comm.).

If I have one reservation, it is that the wealth of detail is often confusing because the authors make no attempt at summarizing or organizing the material. For the reader, it would have been easier to absorb the repetitive and sometimes conflicting data—such as the percentage of ptarmigan remains found at nest sites—if they had been placed in tables.

The last quarter of the book covers a variety of subjects ranging from banding data and satellite telemetry to relations with other raptors, falconry, and conservation. The section on persecution and human-induced threats includes some shocking information on the high incidence of Gyrs (and Snowy Owls) caught on arctic fox traps and thrown out as "trash" or used as bait, here in Canada and Eurasia. In parts of Russia, all too many Gyrs are caught in snares set for ptarmigan.

During the medieval heyday of falconry, the Gyr was the ultimate

favourite of royal mews in Europe, which were staffed by hundreds of keepers and contained large numbers of birds. The book gives much detail on the yearly trade of Gyrfalcons that were captured in Iceland. In recent times, the sport of falconry has experienced a revival, and Gyrfalcons are again highly desired. Curiously, Iceland is now one of the countries within its breeding range where its capture is not permitted. When the matter came up again in the Icelandic parliament, one member argued: "There is a demand, we have a supply, let's make some money." The motion was defeated by the counter argument that the same logic applied to the export of Iceland's virgin daughters.

The one section which I found disappointing deals with the living bird, in particular how it hunts and captures its prey. Granted, existing literature on this subject is meagre. Most publications describe no more than one or two hunts or kills, yet they are quoted repeatedly. Two papers from central Alberta based on large samples of hunts are mentioned only in a short paragraph, leaving out descriptions of

unique hunting methods, figures on the hunting success rate of Gyrfalcons, and a report on a major interference problem with Bald Eagles stealing prey from wintering Gyrs. Furthermore, the book erroneously states that one of the Alberta papers includes the capture of 17 mallards besides the recorded 15 pigeons. Such a mistake makes one wonder about the accuracy of other material. It again demonstrates that any serious student of this and other natural history subjects needs to check the original references instead of relying on second-hand information.

Lastly, for *Blue Jay* readers, a serious shortfall of the book is that it includes no information on migrating and wintering Gyrs in our prairie provinces, nor anywhere else in southern Canada. Nevertheless, despite these shortcomings, I am sure that every raptorophile would enjoy perusing this detail-rich publication and add it to his or her professional library.

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*Gyrfalcon, Sherwood Park AB, March 10, 2004*

*Gerald Romanchuk*