the type species of each genus, list of host genera and substrata and index.

The Clavariaceae of India by K. S. Thind, 1961, p. 197, with 60 figures, glossy paper, hard bound, price Rs 20.00, ICAR, New Delhi. The monograph includes: Introduction (historical, economic importance, morphology and terminology, fructification, life history, sexuality, cultural behaviour, geographical distribution, collection and preservation, identification and simplified key to 15 genera of Clavariaceae recorded from India and their species), discussion, appendix, bibliography, glossary, index to genera, species and synonyms.

Indian Cercosporae by R. S. Vasudeva, 1963, p. 245, with 168 figures, glossy paper, hard bound, price Rs 23.00, ICAR, New Delhi. The monograph contains key to species, description of species, discussion, appendices, selected reference and index (host index with Cercospora species).

Agriculture

A History of Agriculture in India by M. S. Randhawa, 1980, vol. I, beginning with the 12th century, p. 541, price Rs 50.00;

1982, vol. II, 8th–18th century, p. 358, price Rs 37.00; 1983, vol. III, 1757–1947, p. 422, price Rs 45.00; vol. IV, 1947–1981, p. 716, price Rs 85.00. The price of all four volumes is Rs 237.00 and discounted price is Rs 142.00, all published by ICAR, New Delhi.

These volumes contain a wealth of information and are sufficient to run a programme in future for graduates and postgraduates pursuing a course on agriculture in ancient India. Randhawa has not left untouched any aspect of agriculture. They deal with agriculture traced from 8th century till the present day. The historical account is given by the rulers and encompasses their activities in agriculture, dairy, poultry, environment and forestry. A lucid account of culture, village life, crop cultivation, horticulture, spices, tools, soil type, water conservation, marketing, including crops and fruits introduced from the West is also given.

The reason for mentioning in detail the contents of these monographs is to acquaint the readers with the comprehensiveness of these authoritative works and compare them with those published currently by Indian workers, although undoubtedly there are exceptions.

The purpose of this correspondence is to highlight the wealth of information given in these monographs/books. Let us not devaluate our scientific literature. No book is priced less than Rs 1000–3000 in the Indian market and is even more in the international market. Secondly, these books can be the starting point in monographing our biodiversity. Thirdly, as mentioned above, the volumes by Randhawa can be used as a reference book to run a course on 'Agriculture in ancient India'

- 1. Kalman, V., *European Smut Fungi*, Gustav Fischer Verlag, Stuttgart, 1994, p. 570.
- 2. Braun, U., A Monograph of the Erysiphales (Powdery Mildews), J. Cramer, Berlin, 1987, p. 700.
- Sutton, B. C., The Coelomycetes, Commonwealth Mycological Institute, Kew, Surrey, 1980, p. 696.

N. D. SHARMA

21, Kundan Residency, Mandla Road, 4th Mile, Tilhari, PO Gauriya Ghat via RFRC, Jabalpur 482 021, India e-mail: ndsfungi@yahoo.co.in

Ramro Korang Lake needs studies on fish diversity and water quality analysis for aquaculture

Arunachal Pradesh, once described as the 'Hidden Land' by virtue of its geographical position, climatic conditions and altitudinal variations, is a biodiversityrich region in Northeast India. The geography of the state is varied, with variation of mountainous ranges. It is a land of lush-green forests, deep river valleys, plateaus, numerous wetlands, lakes, rivers and full streams.

The East Siang District with its headquarter at Pasighat, is located between 27°43'N and 29°20'N lat., 94°40'E and 95°35°E long. The altitude of the district varies from 13 to 273 m from the sea level. With regard to information available about lakes/beels/wetlands, Nath and Dey¹ reported that 2500 ha of lakes and wetlands exist in Arunachal Pradesh. Raina² also reported 2500 ha of beels/lakes present in the state which have vast untapped potential for enhancement of fish yield and harbour a variety of commercially important cultivatable fish germplasm resources. Das *et al.*³ reported 27 lakes in Arunachal Pradesh; however, the Ramro Korang Lake in East Siang District, Arunachal Pradesh was not reported.

This lake is situated near the National Highway 52A between the place named 2 mile and 5 mile of Pasighat–Ruksin Road, East Siang District. The lake is natural and private. It is about 3 km in length in the north–south direction and the width varies from 50 to 200 m (Figure 1). The depth of water varies from 2 to 10 ft in winter and the early rainy season, whereas in the rainy season it varies from 10 to 20 ft. The lake water is mostly covered by hydrilla, eichhornia and other aquatic plants. The eastern side of the lake is covered by deep forests contain-

ing bamboo, big trees and grasslands, whereas the western side of the lake is mostly covered with bamboos, herbs, shrubs and other trees. The source of water is natural. During the rainy season, water from the Siang river enters the lake from the northern side, when the water level in the river is high.



Figure 1. North view of Ramro Korang Lake.

The Ramro Korang Lake is a good location for the development of aquaculture. This lake has the potential to fulfil the fish requirement of the East Siang District, which currently depends upon other states for the supply of fishes.

The lake is totally unexplored as far as its aquatic diversity and water quality analysis are concerned. Therefore, this lake deserves top priority from the national institutions of fisheries, such as National Research Centre on Cold Water Fisheries, Bhimtal; National Bureau of Fish Genetic Resources, Lucknow; Central Institute of Freshwater Aquaculture, Bhubaneshwar; Central Institute of Fisheries Education, Mumbai, and Central Inland Fisheries Research Institute, Bar-

rockpore or other international fisheries/aquaculture organizations, to start research in the field of aquaculture development. Also, a survey needs to be conducted for identification of lakes in Arunachal Pradesh, so that all these lakes are documented and a proper programme formulated for their utilization and development for aquaculture.

- Nath, P. and Dey, S. C., Fish and Fisheries of North-East India (Arunachal Pradesh), Narendra Publishing House, Delhi, 2000, p. 217.
- Raina, H. S., In Coldwater Fisheries Research and Development in North-east Region of India (eds Tyagi, B. C., Shyam

- Sunder and Madan Mohan), 2005, pp. 77–86.
- Das, D. N. et al., Report, Collaborative project between National Bureau of Fish Genetic Resources, Lucknow and Department of Zoology, RGU, Itanagar, India, FTR Zone II, ICAR Project No. FB-22, 2006, p. 10.

KESHAV KUMAR JHA

Fish Germplasm Explorations Laboratory, Department of Zoology, Jawaharlal Nehru College, Pasighat 791 103, India e-mail: jhakk08@yahoo.com

The Great Indian Bustard (Ardeotis nigriceps) on the verge of extinction

Bustards are magnificent, tall, long-necked and long-legged birds belonging to the avian family Otididae. There are about 23 species of bustards in the world, and the Great Indian Bustard (GIB; *Ardeotis nigriceps*) is the most endangered among these

The GIB, the state bird of Rajasthan, is a shy bird living in arid and semi-arid (dry) grasslands and scrubs containing scattered bushes and some cultivation.

The GIB, once abundant in the grasslands across the Indian subcontinent, is reportedly extinct from 90% of its former range¹. Now, the GIB is confined to some parts of Rajasthan, Gujarat, Maharashtra, Karnataka, Madhya Pradesh and Andhra Pradesh in India, and Sind in Pakistan¹, in scattered and isolated populations.

During the 19th century, flocks of more than 20 GIBs were a common sight in the Indian grasslands, but now even a flock of three is a rare sighting.

According to Rahmani², their population has declined to almost 50% during the last 10–15 years. Today, their total number is estimated to be about 500 individuals³.

In India, the GIB is protected in 12 sanctuaries⁴. Ironically, it has disappeared from two such sanctuaries meant for its protection² and the cause could be mis-

management, corruption and poaching. Their highest living number is found in Rajasthan, followed by Gujarat. The Desert National Park (DNP), Rajasthan is the biggest of GIB sanctuaries⁴, with only 70–75 individuals left⁵. The second main protected hotspot of their survival is the Lala–Parjan Sanctuary (also known as the Kutch GIB Sanctuary) in Gujarat.

Their population has declined drastically, despite the fact the birds are considered rare and are being protected since India's independence. Habitat deterioration, poaching and lack of proper conservation efforts are the main causes for their decline. In addition to over-grazing, expanding agricultural fields and urbanization, the Indira Gandhi Nahar Project (IGNP) and the better transport facilities have also contributed to their decline.

The Bombay Natural History Society has extensively studied the decline of this bird and has strongly urged the starting of a centrally-sponsored 'Project Bustard' (like Project Tiger) as a conservation strategy⁶.

Listed in Schedule-I of the Wildlife Protection Act 1972 (India), the GIB is classified as 'endangered' on the IUCN Red List 2002, and Birdlife International

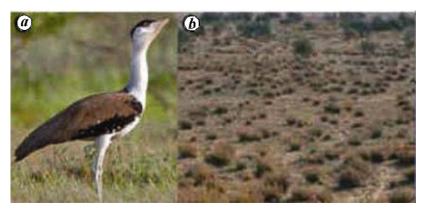


Figure 1. a, The Great Indian Bustard (*Ardeotis nigriceps*); **b**, Its habitat. (Courtesy: Bird Life International¹).