



Mriga-pakshi-shastra (The Science of Animals and Birds). Hamsadeva (c. 13th century AD). Nalini Sadhale and Y. L. Nene (eds and translators). Asian Agri-History Foundation, 47, ICRISAT Colony-I, Brig. Sayeed Road, Secunderabad 500 009. 2008. 372 pp. Price: Rs 1200/US\$ 30.

This book is a translation by Nalini Sadhale and Y. L. Nene of a 13th century Sanskrit manuscript by Hamsadeva, who is reported to be a poet and naturalist attached to the court of King Shaudadeva. The King was captivated by the graceful sights and movements of several animals and birds in the forest and his mind was overwhelmed with pity at the thought of their destruction and eventual extinction through hunting. He therefore ordered his minister Tarananda to commission a suitable person to write about these creatures dwelling in the forests and mountains. Tarananda selected Hamsadeva to undertake this work.

The expectations of a reader provoked by the title may at first reading of the book not be fulfilled, because the science or shastra is not immediately evident in the presentation of the materials in the book. The terms 'science' and 'shastra' have been used interchangeably in the title by the translators and editors, but they are in fact not synonyms, because of their vastly different epistemologies. On closer reading of the book its shastric attributes may become implicit, but the shastra is not explicitly expressed in the classical tradition of the Indian shastras. The etymology of the Sanskrit word 'shastra' implies to govern or rule, it therefore suggests laws and also a theoretical framework that can predict. Whereas the book carries extremely readable description of 21 animals and 28 birds, the nature of the description

given is neither in the form of a detailed taxonomy nor in the language of conventional biology or classical shastra. For example, each animal and bird is described in terms of its varieties and in each variety the original author Hamsadeva describes their characteristic physical traits like colour, height, sexual behaviour, temperament, etc. A typical description reads thus. This is the description of one (mrigendra) of the six varieties of lions described in the book (Simha, mrigendra, panchasya, haryaksha, kasarini, hari).

Mrigendra (The majestic lion):

- Those (lions) having all physique and long mane, and are bereft of anger are called mrigendras by the experts.
- They are slightly irate when hungry. They are fond of capturing deer and other animals. They are often in search of elephants and are stated to roar louder.
- They wander in bushes and also in sandy areas. Tall, intoxicated, and brave they are dreadful with their formidable molars.
- They are sexually active in rainy season. They sleep less but are very healthy. They like to roam in the shade and can sustain hunger.
- Although calm in appearance, they cannot be overpowered and cause fear in the minds of other animals. Although slow in gait, they cannot be ensnared.
- The front portions of their body are covered with mane. They have shining yellow eyes. Some have long hair on the chin and spots on the skin.

The question that begs an answer is 'how are these kinds of descriptions in keeping with the expectations aroused by the use of the word shastra or science'.

In the shastras in a subject that could be called ayurvedic biology (dravya guna shastra), it is well known that the implications of colour, height, bulk, gait, and temperament of the different varieties of animals and birds, are indicative of their systemic biology or the panchamahabhautic and the tri-doshic constitution of the animal or bird. However, this systemic biology of the animals and birds is not explicitly spelt out by the original Sanskrit author, nor is it inferred by the translator. A discerning reader familiar with ayurvedic biology can generally infer the biological implications of the morphological and phenome descriptions provided in the book. Perhaps, Hamsa-

deva presumed that the reader would be familiar with the biological implications of the characteristics of animals and birds that he has described and thus called his writings a 'shastric work'. The style of Hamsadeva's Sanskrit writing which has been reproduced in the book, does not exhibit much metrical variety. Most of the verses have been composed in the 'anusthu' meter, which has eight syllables in each quarter. The arrangement of the syllables however does not carry sufficient poetic variation. The English translation of Sanskrit words should perhaps have carried diacritical marks.

The varietal classification of animals and birds is interesting. For instance, six varieties of lions and 14 varieties of elephants are described. Do modern biologists acknowledge this extent of intra-specific variation? The authors of the technical notes at the end of the book try to figure this out by comparing the varieties mentioned in the book with the contemporary literature and conclude that either some of the varieties have disappeared due to extinction caused by over-exploitation and loss of habitat, or else they have been wrongly categorized. This is a subject of serious expertise and therefore does not warrant casual speculation. The editors have however made a preliminary effort in this regard.

The task of translating a 13th century work of Sanskrit into English is not an easy one, and it has been well done by the translators and editors. It may perhaps be too much to expect from the translators and editors to add an introductory chapter on the indigenous science of biological classification of animals (dravyaguna), so that the reader can more fully appreciate the shastra underlying the writing. Perhaps this can be attempted in another edition of the book.

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