'Taiga' Bean Goose *Anser fabalis fabalis* from Maharashtra, with a review of its status in India

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Observation

During the morning boat ride on 15 December 2021, RB saw a brown-coloured goose in a flock of Bar-headed Geese *Anser indicus* at Bhigwan village (18.32°N, 74.75°E) in Pune District, Maharashtra. Bhigwan is located on the backwaters of the Ujani Dam Reservoir, which is an Important Bird and Biodiversity Area (Rahmani et al. 2016). He informed SN that there was a Greater White-fronted Goose *A. albifrons*. As the Greater White-fronted Goose is also an important sighting for Maharashtra, having been sighted in Bhigwan in December 2015, many photographers reached the Bhigwan area and photographed this bird. Several images were posted on social media and eBird.

One such image caught the attention of AS, who identified the bird in it as a Bean Goose *A. fabalis*. RK also visited the location and photographed the goose on 7 January 2022.

The photographs **[65, 66]** show the bird to be the same size as a Bar-headed Goose. The bird was seen, moving and foraging, with a flock of Bar-headed Geese. It had bright orange legs and, overall, dark upperparts. The underparts were lighter, and the lower belly and vent, behind the legs, were white. The flight feathers and wing coverts were dark with white margins. The primary coverts had rounded tips, whereas some lesser coverts were rectangular shaped (with thinner white margins).

65. Taiga Bean Goose with gently sloping forehead, orange-yellow on black bill which is spreading towards the base of the bill.

66. Taiga Bean Goose showing it's long neck.

Both: Raju Kasambe

Taxonomy

Authorities do not follow a consistent taxonomy for the Bean Goose. However, all taxonomies consider two groups: a Tundra group comprising the races, *rossicus* and *serrirostris*, *sensu stricto*, and a Taiga group comprising *fabalis*, *sensu stricto*, *johanseni*, and *middendorffii*. Praveen et al. (2020), Dickinson & Remsen (2013), and HBW & BirdLife International (2021) still consider the Bean Goose as a single species, while Gill et al. (2022) and Clements et al. (2019) treat it as two species. Increasingly, the validity of *johanseni*, as a subspecies, is questioned, and it is often subsumed under *fabalis*, *sensu stricto*. For the purpose of this article, Tundra Bean Goose refers to *rossicus* and *serrirostris*, and Taiga Bean Goose refers to *fabalis* (including *johanseni*), and *middendorffii*. The name Western Taiga Bean Goose is used for the nominate, and Eastern Taiga Bean Goose for *middendorffii*.

Identification

The Taiga Bean Goose and Tundra Bean Goose are difficult to separate in the field, and some individuals will always be impossible to assign to subspecies based on visual characteristics alone (Anonymous 2022). The Bhigwan bird was photographed by many observers and numerous photographs of it are available on Facebook and eBird. Most observers reported it as a Tundra Bean Goose. A comparison of images of this particular goose, with many images of Tundra Bean Goose and Eastern Taiga Bean Goose, led us to conclude that the bird is a first winter Western Taiga Bean Goose. It has an orange-yellow bill, with black bands on both mandibles, the band on upper mandible spreading towards the base along the lower margin. In a Tundra Bean Goose, the orange-yellow part of the bill is usually restricted to a narrow band across the bill (Anonymous 2022). In addition, it had a long neck

(visible in the photograph where it is seen drinking water); the head and neck are concolourous, and the forehead is gently sloping; whereas the head of a Tundra Bean Goose is darker than the neck and presents a rounder jizz (Anonymous 2022).

During the review process, we consulted three experts—Antony Fox, Antti Piironen, and Mikko Alhainen—of the Taiga Bean Goose Task Force (https://egmp.aewa.info/task-forces/taiga-bean-goose-task-force), who concurred with our identification, stating that the shape and form of the bill, of this individual, is far too long and slender for a Tundra Bean Goose, which tends to be much more 'triangular' in outline, with a steeper angle from the tip of the bill to meet the skull at the forehead. The bird clearly shows a 'grinning' patch where an opening gap between the upper and lower mandibles reveals the ranked lamellae inside. The neck and head of this individual are also quite slender. Similarly, this bird looks too small overall, and its head and bill are too small, short, and slender for it to be an Eastern Taiga Bean Goose, which is quite distinctive. Although it is not rare to encounter single, lone Bean Geese that can be difficult to distinguish between Taiga and Tundra, this individual can be diagnosed as having the characteristics of a Taiga Bean Goose, but none of those of the Tundra Bean Goose forms (Antony Fox, *in litt*., e-mail dated 30 January 2022).

The age of this bird is very evident based on the pearled edging of the feathers on the belly, breast, and flanks, the very rounded uneven pattern of the wing coverts, and the interrupted white line along the top of the flanks and the folded wing. These features indicate it to be a first winter Western Taiga Bean Goose (Antony Fox, *in litt*., e-mail dated 30 January 2022).

Discussion

The Bean Goose is rare in the Indian Subcontinent and is included in Praveen et al. (2016) based on three photographic records, and an old specimen (Praveen et al. 2014). Ali & Ripley (2001) included it based on historical records, a majority of which remain unverified, and probably refer to other *Anser* species as well (Praveen et al. 2014). Records from India were inconclusive on subspecies identification (Praveen et al. 2014) and we attempt to clarify the cases of some of the previous records of Bean Goose in Table 1; we did not assess claims where the details of identification were not documented.

There are four specimens of the Bean Goose in the collection of the Bombay Natural History Society (hereinafter, BNHS), three of which were collected in Denmark. The fourth specimen (No.15292, date on label: 20/01/1947; labelled as *A. fabalis*) was collected by Lt. Col. Hurrell in Imphal, Manipur (then in Assam) in December 1946 (Hurrell 1947). Abdulali (1968) had listed it as Sushkin's Goose *A. f. neglectus*. Praveen et al. (2014) identified the specimen as a Bean Goose and mentioned that "it may, structurally, belong to the long necked *fabalis / johanseni / middendorffii* group, this specimen requires critical re-examination". RK examined the specimen (No.15292) and found that it has a clear "grinning" patch, where an opening gap between the upper and lower mandibles reveals the ranked lamellae inside, thus ruling out the Tundra Bean Goose, and indicating it is either a Western Taiga Bean Goose, or an Eastern Taiga Bean Goose.

The photographs of this specimen, along with the published morphometrics, were analysed by Tim Inskipp in 2013 at the time of publication of Praveen et al. (2014), and his conclusions, after comparing with Cramp & Simmons (1978), were concurrent with our current analysis. According to Inskipp, the extent of pale on the bill should rule out Tundra *serrirostris sensu stricto* (confined to band behind the nail), and additionally, the bill length (63mm) should rule out Tundra *rossicus* (maximum 63, mean 57.7 and 54.6 for males and females). The large extent of pink-orange and

Table 1. Records of Bean Goose from South Asia / India

Peer birder	Reference	First Report Date	State	Place	Claimed subspecies	Remarks
Lt. Col. Hurrell	Hurrell 1947	20-01-1947	Manipur	Imphal	*sushkini* [not recognised now]	Western Taiga, as stated above
Mike Prince & Sujan Chatterjee	Prince 2003	12-02-2003	Punjab	Harike	johanseni	Photos show a long-necked Goose consistent with a Taiga, see notes in the reference
Craig Robson	Robson 2007a, b	01-04-2007	Assam	Dibru Saikhowa National Park	*middendorffii*	Sight record and hence not assessed
Anushree Bhattacharjee	Bhattacharjee 2013	01-12-2011	Uttarakhand	Tumariya Reservoir	*rossicus/serrirostris*	Expert opinion as Tundra, documented in the note
Sunil Singhal	Sangha 2015	1-02-2015	Rajasthan	Mansarovar, Sariska National Park	*rossicus/serrirostris*	Reasons for being Tundra documented in the note
Ashok Kumar Das	Das 2016	04-03-2015	Assam	Pabitora	Unknown	Not assessed
Arunava Bhattacharjee	Bhattacharjee 2016	09-01-2016	West Bengal	Gajaldoba	*rossicus/serrirostris*	Not assessed
Porag Phukan	Phukan 2016	09-03-2016	Assam	Maguri	Unknown	Not assessed
Swarnendu Biswas	Biswas 2017	25-12-2016	West Bengal	Gajaldoba	*rossicus/serrirostris*	Reasons for being Tundra documented in the note
Rofikul Islam	Islam 2019	07-01-2019	Assam	Maguri	Unknown	Not assessed
Dipankar Roy	Roy 2019	10-11-2019	West Bengal	Gajaldoba	*rossicus/serrirostris*	Not assessed
Pallav Pranjal Sarma	Sarma 2020	17-02-2020	Assam	Pabitora	*rossicus/serrirostris*	Not assessed
Parvez Shagoo	Shagoo 2020	27-02-2020	Jammu & Kashmir	Gharana	*rossicus/serrirostris*	Not assessed
Raju Bhoi	This note	15-12-2021	Maharashtra	Bhigwan	*rossicus/serrirostris*	As discussed, this is Western Taiga
Hemant Kirola	Kirola 2021	22-12-2021	Assam	Maguri	*rossicus/serrirostris*	Not assessed
Rofikul Islam	Islam 2022	21-01-2022	Assam	Kaziranga	*rossicus/serrirostris*	Not assessed

bill length should also rule out Eastern Taiga (male: 64–81, mean 73.3, female 63–80, mean 72.7, pale confined to a band behind nail). The large extent of pale should also rule out typical *johanseni* type birds of Western Taiga where the pale should be confined to a band behind the nail, or with a thin streak running back along sides of upper mandible to its base; rarely as much as Western Taiga *fabalis sensu stricto*. In summary, the extent of pale on the bill, and bill morphometrics, suggest Western Taiga *fabalis sensu stricto*. This specimen was not treated as a confirmed Western Taiga in Praveen et al. (2014), as this population was known to winter almost entirely within Europe and was considered unlikely to venture this far east (Praveen J, *pers. comm*.). However, recent information from satellite tracking (Rozenfeld et al. 2018), and the current understanding that the entire population (including *johanseni*) be considered a single taxon, i.e. *fabalis sensu stricto*, would require a re-labelling of this BNHS specimen as a Western Taiga Bean Goose *A. fabalis fabalis*.

We feel that the occurrence of individuals from this population may not be that surprising in India, although of course still unlikely. Recently, Rozenfeld et al. (2018) showed that at least some Bean Geese in Central Asia are Western Taiga Bean Geese. Rozenfeld et al. (2018) show that these birds are known to breed in the eastern parts of the Yamalo-Nenets Autonomous District, Russia (68°50'N, 54°50'E), and winter in Xinjiang Province, western China. Though this is far away from Central India, it does increase the probability of a bird from this population turning up in India, given the fact that in western China there is a chance of this population mixing with large numbers of Bar-headed Geese. This could quite likely be the case if a disorientated, first winter bird had lost contact with its family. Hence, it is possible that this individual belongs to this sub-population. While we can never entirely explain the reasons behind such extralimital appearances, this route seems very much more likely than suggesting any other origin for a subspecies that otherwise winters mostly in Europe (Nilsson et al. 2010), and therefore would be an unlikely vagrant in India.

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