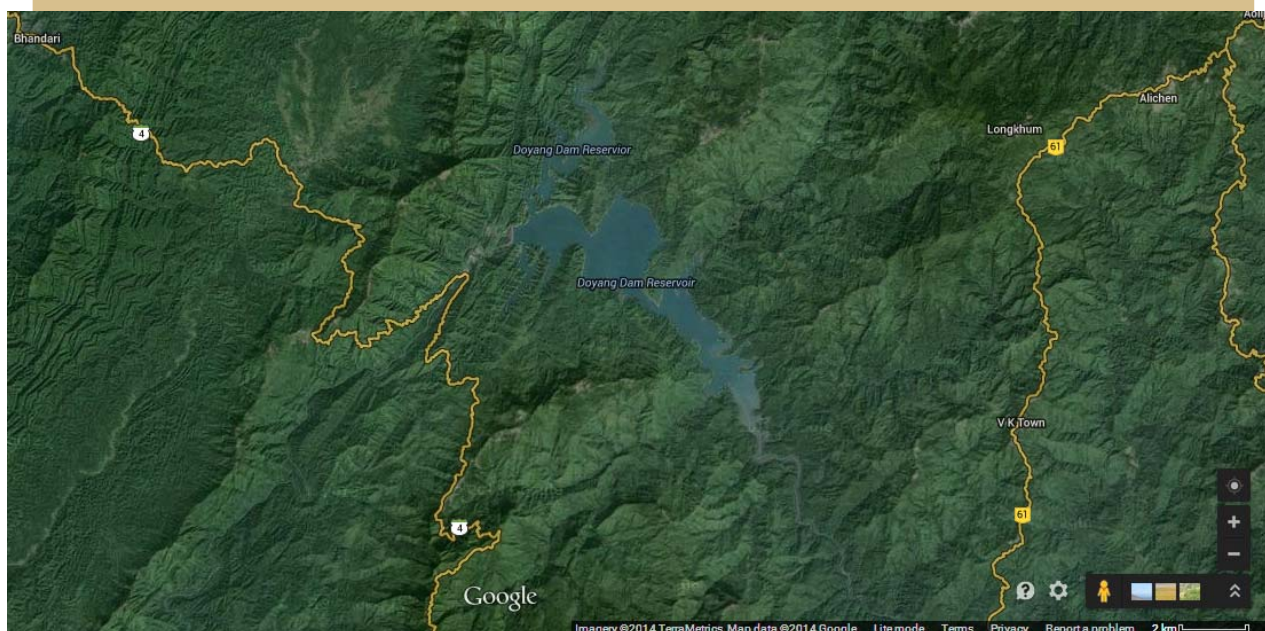


Doyang Reservoir: A potential IBA in Nagaland



Site Name : Doyang Reservoir

State : Nagaland

District : Wokha

Coordinates : 26° 13' 45" N; 94° 17' 51" E.

Altitude : 300 m

IBA Criteria : A4(iv) migratory species at bottleneck sites

GENERAL DESCRIPTION

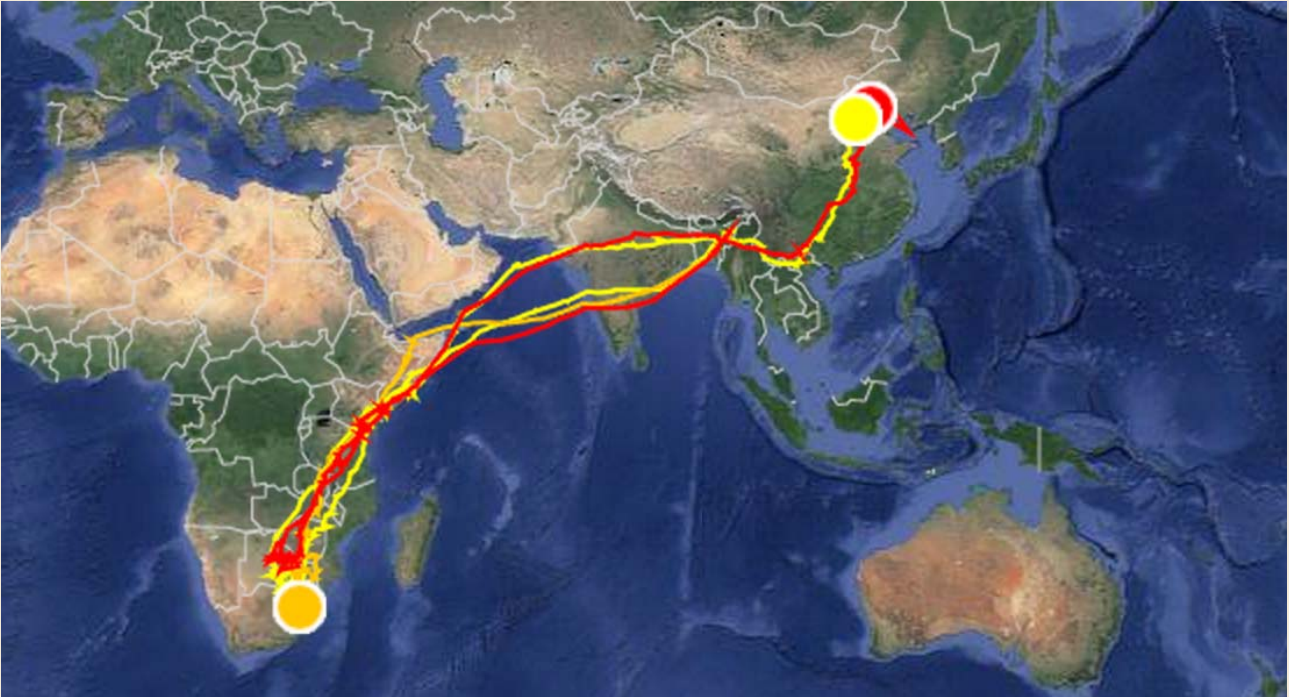
Doyang Reservoir was created during the construction of the dam for Doyang Hydro Electric Project, in Wokha district, Nagaland. Doyang is a rockfill dam and hydroelectric project with a design capacity of 75 MWe, on the Doyang river, a tributary of the Brahmaputra, 26 km from Wokha town, the district headquarters. The power plant is run by the North Eastern Electric Power Corporation (NEEPCO). The other cities nearby are Mokokchung (Nagaland), Golaghat (Assam), and Kohima (Nagaland).

Doyang Reservoir easily qualifies for the A4(iv) criteria (Congregations) of the Global IBA Criteria. A4(iv) is applicable to sites known or thought to exceed the thresholds set for migratory species at bottleneck sites. The site qualifies under this criterion as it is the bottleneck site for feeding and resting of more than a million Amur Falcon *Falco amurensis* during their migration.

A team consisting of Ramki Sreenivasan from Conservation India, Shashank Dalvi, Bano Haralu, and

Rokohebi Kuotsu visited the area in October 2012 and brought to light the issue of the massacre of Amur Falcons. They estimated that during the peak migration 12,000–14,000 falcons were being hunted in the area for consumption and commercial sale every day. They also estimated that 120,000 to 140,000 birds were being slaughtered in Nagaland every year during their passage through the state (Conservation India website accessed on May 30, 2014).

Amur Falcons breed in east Asia from the Transbaikalia, Amurland, and northern Mongolian region to parts of North Korea. They migrate in a broad front through India, sometimes further east over Thailand and Cambodia, and then over the Arabian Sea, sometimes in passage on the Maldives and other islands, to reach southern Africa. Birds going over India are thought to be aided by strong winds blowing westwards. These winds are strong at an altitude of about 3,000 m and the birds are believed to fly at a height above 1,000 m during migration (Peter & Holman 2001).



Map showing migration route of three satellite tagged Amur Falcons. Yellow - Pangti; Orange - Wokha; Red - Naga.

SOURCE: www.satellitetracking.eu

Approximately a million Amur Falcons pass through the valley during their migration and hence it easily qualifies as an IBA under the A4(iv) criterion which applies to sites known or thought to exceed thresholds set for migratory species at bottleneck sites. The global population of the species is estimated to be 1,000,000 birds (BirdLife International 2014).

MIGRATION ROUTE

In a significant achievement, three Amur Falcons were satellite tagged by scientists of BirdLife Hungary with the help of Wildlife Institute of India, Nagaland Forest Department, and local people, and released on November 6, 2013 near Pangti village. The birds were named Naga, Wokha, and Pangti. The three birds were fitted with 5 gram ARGOS satellite tags with antenna and solar panel on their back (<http://www.cms.int/en/project/conservation-amur-falcon-nagaland-and-along-its-migration-route>).

The satellite tagging was an initiative of the Union Ministry of Environment and Forests (MoEF), Wildlife Institute of India (WII), Convention on Migratory Species Office (CMS), United Nations Environment Programme (UNEP), and the Nagaland Forest Department.

The migration route of the tagged bird can be monitored on the <http://www.satellitetracking.eu> website, from which a summary of how the three tagged Amur Falcons travelled across countries and continents is given below:

The male bird named Naga (with colour ring number KAM, ring number C56801) flew over Senapati and Churachandpur

(Manipur) to Aizawl (Mizoram), entered Bangladesh, Bay of Bengal, Andhra Pradesh, Karnataka, and Goa, after which it flew non-stop across the Arabian Sea to reach the coast of Somalia on November 20, 2013. It stayed at the Tsavo National Park in Kenya for a few days, before crossing to Tanzania, Zimbabwe, and Botswana, finally entering South Africa on January 9, 2014. During its return journey, it travelled through Botswana, Zimbabwe, Zambia, Tanzania, and Kenya, and left the African mainland through Somalia to touch Indian soil at Gujarat. It travelled through Madhya Pradesh, Uttar Pradesh, Bihar, West Bengal, Bangladesh, Meghalaya, and Manipur. It then flew through Myanmar down to avoid the extreme south-eastern Himalaya, climbed north-east towards Beijing and then to Inner Mongolia where it is probably breeding now (http://www.satellitetracking.eu/inds/showmap/?check_143=143 as accessed on 30 June 2014). Similarly, the female falcon named Pangti (colour ring number KFM, ring number C56803) flew over Silchar (Assam), Agartala (Tripura), Bangladesh, Sundarbans, Bay of Bengal, Andhra Pradesh, Karnataka, and Maharashtra before crossing the Arabian Sea. It then crossed the coast of Somalia, entered Kenya, and rested at Tsavo National Park for a few days before flying across Tanzania, Zambia, and Botswana, to enter South Africa. During its return journey it followed nearly the same route as that of Naga (http://www.satellitetracking.eu/inds/showmap/?check_145=145 as accessed on 30 June 2014). From its wintering ground near Newcastle (in South Africa) to its breeding site in Mongolia it flew a whopping distance of 14,560 km at 50 km/h. During

the journey this falcon took a nonstop flight of 5,912 km over the Arabian Sea which it covered in just over five days (<http://www.easternmirrornagaland.com/2013/09/the-story-of-amur-falcon-its-conservation-and-safe-passage/> as accessed on 30 June 2014).

The third falcon, a female named Wokha (colour ring number KCM, ring number C56802), flew over Silchar (Assam), Chittagong (Bangladesh), Bay of Bengal, Andhra Pradesh, Karnataka, and Goa before crossing the Arabian Sea to reach Somalia through the Gulf of Aden. Further on it flew through Kenya, Tanzania, Zambia, Mozambique, and Zimbabwe, and reached South Africa. Probably the transmitter stopped working due to unknown reasons on March 31, 2014, near Sterkfontein Nature Reserve in South Africa (http://www.satellitetracking.eu/inds/showmap/?check_144=144 as accessed on 30 June 2014).

RECOMMENDATIONS FOR IMMEDIATE ACTION

The following recommendations are taken from the Conservation India website, accessed on May 30, 2014:

1. The roosting place is localised and should be sealed off by the authorities (Deputy Commissioner, Superintendent of Police, North Eastern Electric Power Corporation [NEEPCO] and Forest Department).
2. Gain an understanding of and seal trade of Amur Falcon

meat, mainly in big towns like Dimapur, Kohima.

3. Aggressively follow up on the enforcement of the Deputy Commissioner’s ban with Forest Department, Police, local communities, and the Church.
4. Create awareness of the ban and the legal consequences (fine) in all villages including Pangti, Wokha, Doyang, and Sungro.

CONSERVATION ACTIONS TAKEN

The following recommendations are taken from the Conservation India website, accessed on May 30, 2014. Various conservation initiatives have been made in Nagaland. The Government of Nagaland is involved in all the initiatives to end the killing of Amur Falcons. Bombay Natural History Society (BNHS) and other NGOs such as Wildlife Trust of India (WTI), and Natural Nagas came up with a two-year plan for vigilance and enabling mindset change among communities in Nagaland and Assam (Sinha 2013).

1. Amur Falcon is a protected bird under the Indian Wildlife (Protection) Act, 1972 and Convention of Migratory Species, of which India is a signatory. It is listed as a Least Concern species by the IUCN.
2. The Nagaland Wildlife & Biodiversity Conservation Trust (NWBCT), a Dimapur-based NGO, led a campaign with the support of the government as well



Participants of Friends of the Amur Falcon at the first Under The Canopy (UTC) training workshop in Sungro Range, August 2013

ROKHEBI KUOTSU

- as leading conservation NGOs. They have been in touch with various government officials as well as community members since October 2012 on ways to stop the killings in 2013.
3. NWBCT started the 'Friends of the Amur Falcon' campaign with a conservation education programme covering the important villages in Wokha district. Responding to NWBCT's advocacy campaign, church leaders and village councils also appealed to villagers not to hunt Amur Falcons.
 4. Dr. Asad R. Rahmani, (Director, BNHS) called upon Smt. Jayanthi Natarajan, the then Minister for Environment & Forests, Govt of India, on October 31, 2012, who intervened personally, and the Indian Forest Department and District Administration swung into action. The result was that nets were destroyed, captured birds were released, the sale of falcons was stopped, and arrests were made (<http://www.birdlife.org> accessed on 30 May 2014).
 5. The Chief Minister of Nagaland, Mr. Neiphiu Rio, expressed the state government's commitment to end the killing of migratory Amur Falcons on passage in Nagaland. He also mentioned that it was their duty to protect the Amur Falcons and, in true Naga tradition of hospitality, treat them as honoured and esteemed guests. This message was spread to the nearby villages by the Forest Department through a publicity campaign.
 6. BNHS and BirdLife International supported the cause of conservation of Amur Falcons, which are our guests. BNHS wrote to Smt. Jayanthi Natarajan, the then Minister for Environment and Forests, Government of India.
 7. Other NGOs including Wildlife Trust of India (WTI) and Natural Nagas have been very active in drawing up innovative initiatives to prevent hunting of Amur Falcon. According to Steve Odyuo, Chairman of Natural Nagas, a series of awareness campaigns involving the churches, students, and village councils have been undertaken with very positive results. A one-day awareness campaign on "Conservation of Amur Falcons" was organized on October 11, 2013 by the Pangti village council, supported by WTI, Natural Nagas, and the Nagaland Department of Forests.
 8. The awareness campaign included various events like screening of wildlife films, illustrated talks on the activities of the WTI, Natural Nagas, and the Forest Department, distribution of pamphlets, performances by singers from Wokha and Kohima, putting up posters in and around the Amur Falcon feeding areas, and getting feedback from the affected people, which would be targeted at all the age groups of the village. All the neighboring villages were invited to participate in the awareness campaign.
 9. Awareness programme: Sungro Range Youth Welfare Organization (SRYWO), in collaboration with the



ASAD R. RAHMANI

Mass killing of Amur Falcon upto 2013 and subsequent conservation action by the Forest Department, local and National NGOs and villagers could be a game changer in Nagaland



The BNHS and NWBCT team in Wokha village

Forest Department, Government of Nagaland organized a one-day awareness programme on 'Conservation and safe passage of Amur falcons in Nagaland' on October 5, 2013 at Ashaa Village, Doyang Hydro Electric Project (DHEP), Wokha.

10. On October 30, 2013 (and throughout the entire migration period of Amur Falcon), it was reported that there have been absolutely no killings of these birds. This remarkable outcome has been the result of a complete year of painstaking effort from the Nagaland government (especially the Forest Department), many NGOs, and most importantly, the local communities who were determined to end the killings.
11. The campaign is supported by conservation institutions like the Wildlife Conservation Society, Birdlife International, Raptor Research and Conservation Foundation, and Wildlife Conservation Trust.

INDIA AND CBD

India, being a signatory to the Convention on Migratory Species (CMS), is duty bound to prevent this massacre, provide safe passage, as well as draw up appropriate action plans for the long-term conservation of Amur Falcons. In the recently concluded Convention on Biological Diversity (CBD), of which India is the President country for the next two years, the importance of CMS in conserving species, and especially in stopping bushmeat hunting, was repeatedly stressed.

A SUCCESS STORY

As a result of the various campaigns, vigilance, patrolling, and the cooperation and initiative taken by the

people of Nagaland, and an active Forest Department, not a single Amur Falcon was trapped during the 2013 autumn migration (Sinha 2013). Attitudes have changed so much in the space of a single year that the Amur Falcons are now treated, in the words of the Nagaland Chief Minister, as "esteemed guests".

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