

PROJECT “OSPREY IN RUSSIA”: KEY FINDINGS IN 2019–2023



Darwinsky
Biosphere Reserve

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Where did it all start?







PROJECT “OSPREY IN RUSSIA”: KEY PARTICIPANTS (2019–2023)

Babushkin M.V. (*Darwin State Nature Reserve,
Cherepovets, Russia*)

Sharov A.A. (*Company “52dereva”, Nizhny Novgorod,
Russia*)

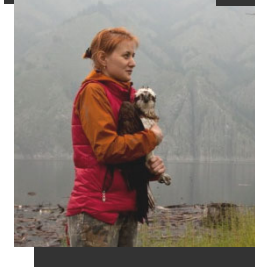
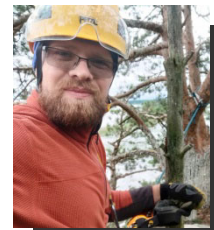
Pchelintsev V.G. (*“Ecoproject” CJSC, St. Petersburg, Russia*)

Sellis U., Sein G. (*Eagle Club, Hauka, Viljandi, Estonia*)

Shikalova E.A. (*Sayano-Shushenski State Nature Reserve,
Russia*)

Utekhina I.G. (*“Magadan” State Nature Reserve,
Magadan, Russia*)

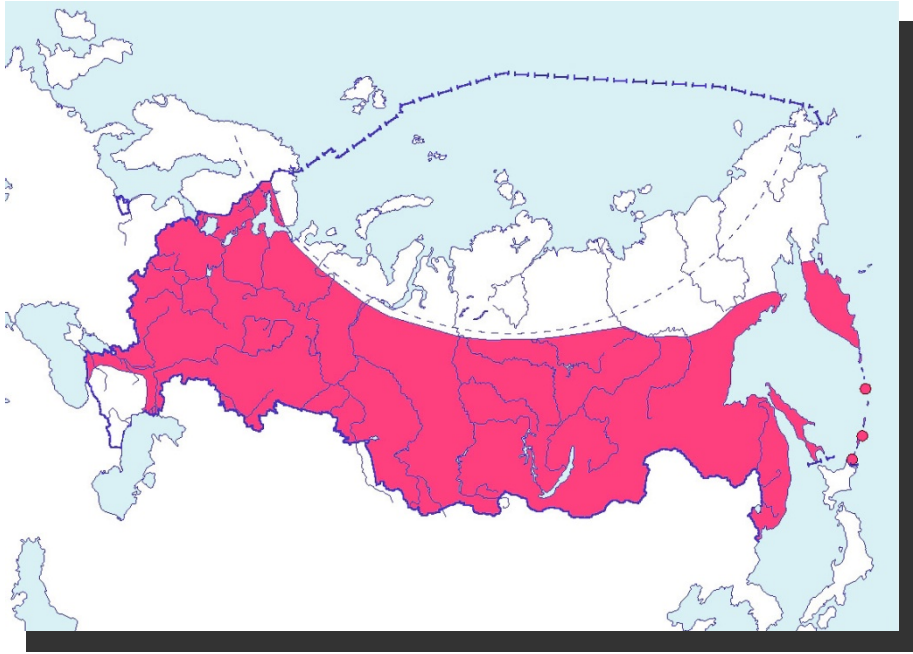
Delgado M.M. (*Biodiversity Division, Joint Research Unit
for Biodiversity, High Council for Scientific Research,
University of Oviedo, Mieres, Spain*)



Project goals:

- (1) Determination of the current abundance of osprey in the regions of Russia
- (2) Determination of wintering sites and migration routes of ospreys living in Russia
- (3) Identification of limiting factors and causes of death of birds in nesting areas, during migration and in wintering areas
- (4) Organization of monitoring of osprey nesting groups in nature reserves and national parks of Russia

Breeding range of osprey (*Pandion haliaetus*) within Russian Federation



Red Book of Russia Federation, 2001

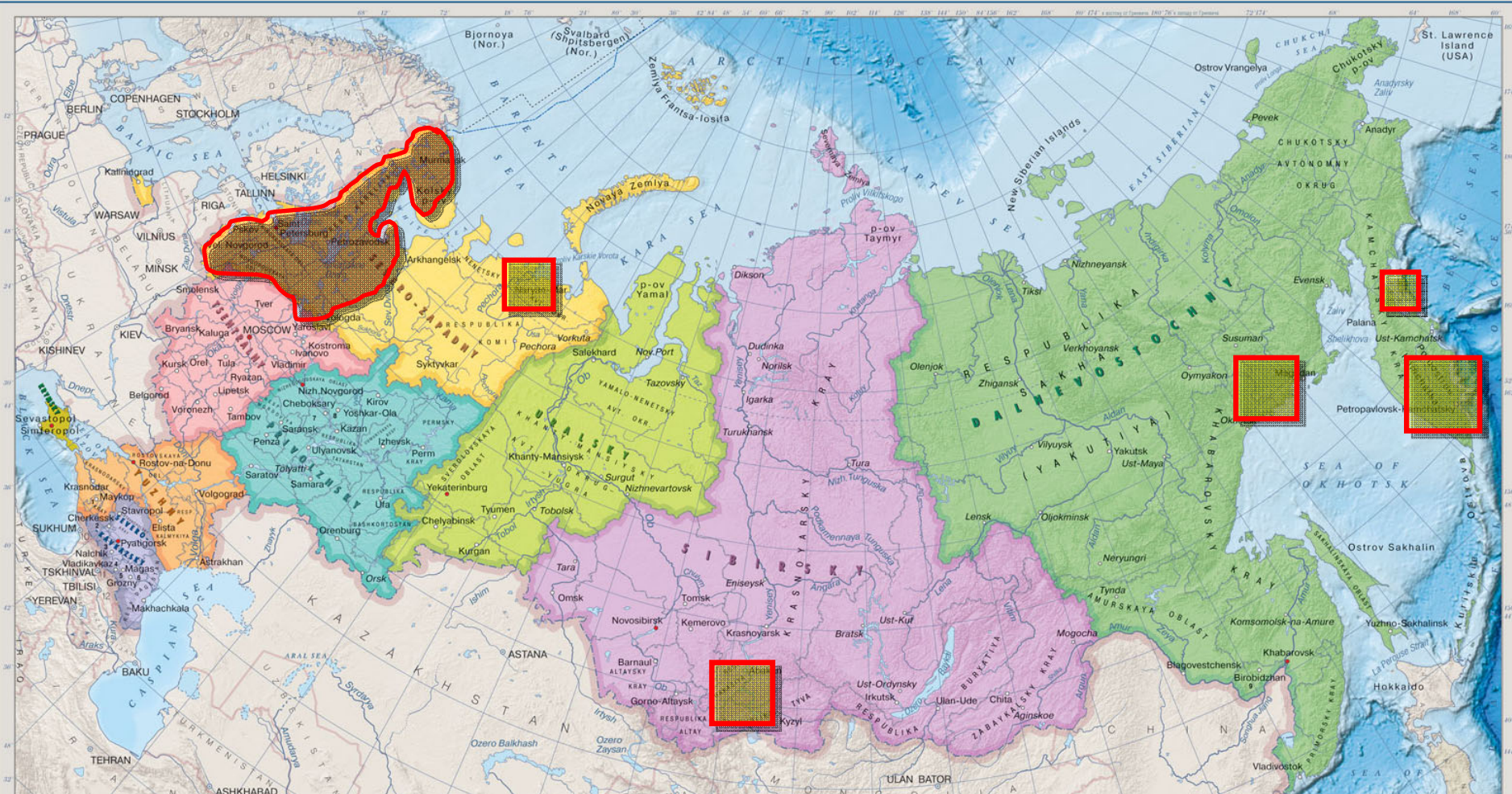


Red Book of Russia Federation, 2021

RUSSIA

FEDERAL DISTRICTS

scale 1: 5 000 000



RUSSIA

FEDERAL DISTRICTS

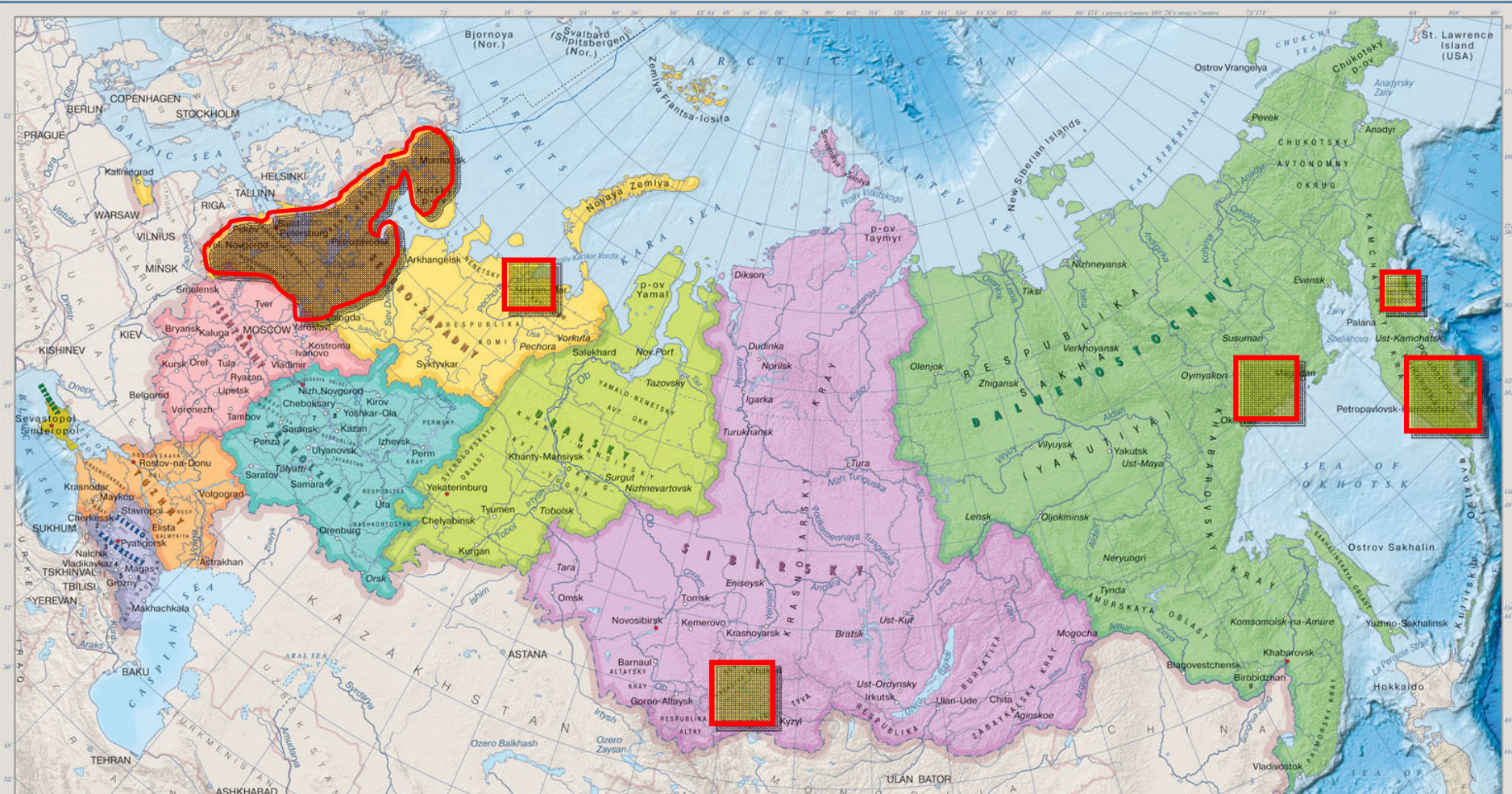
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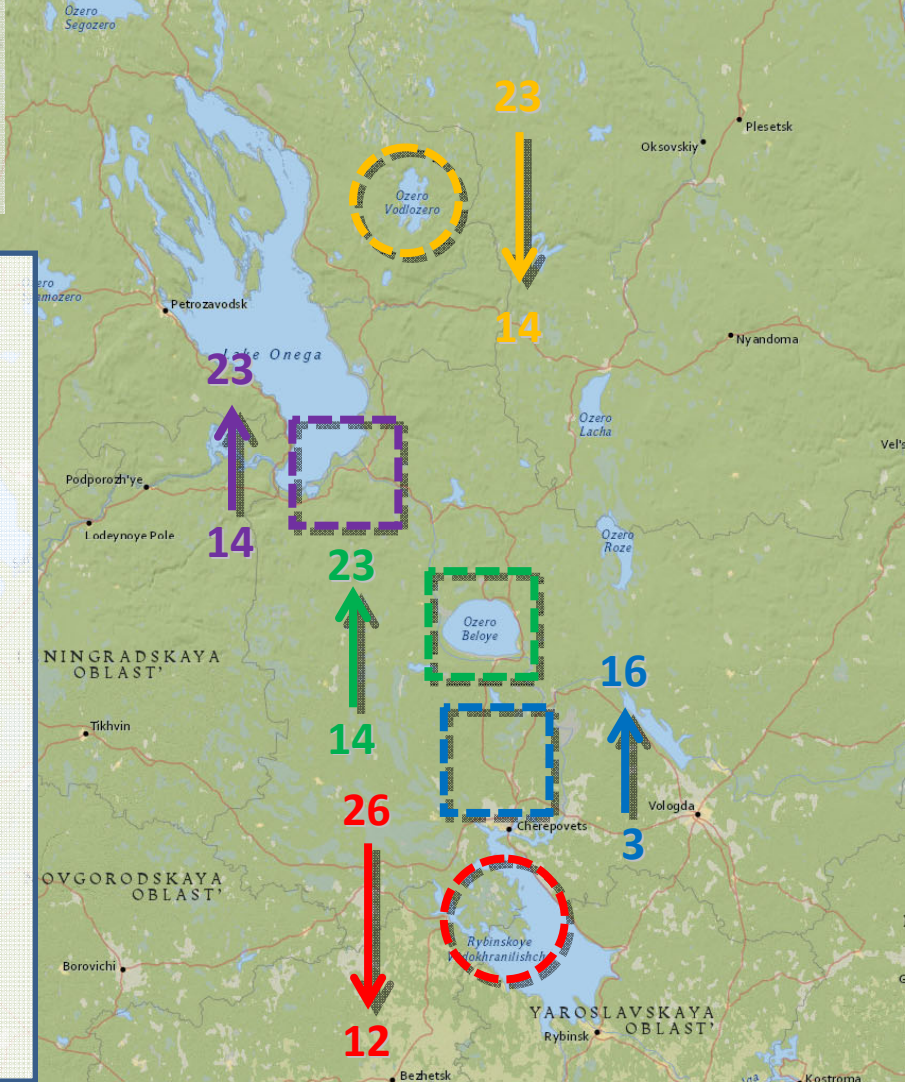
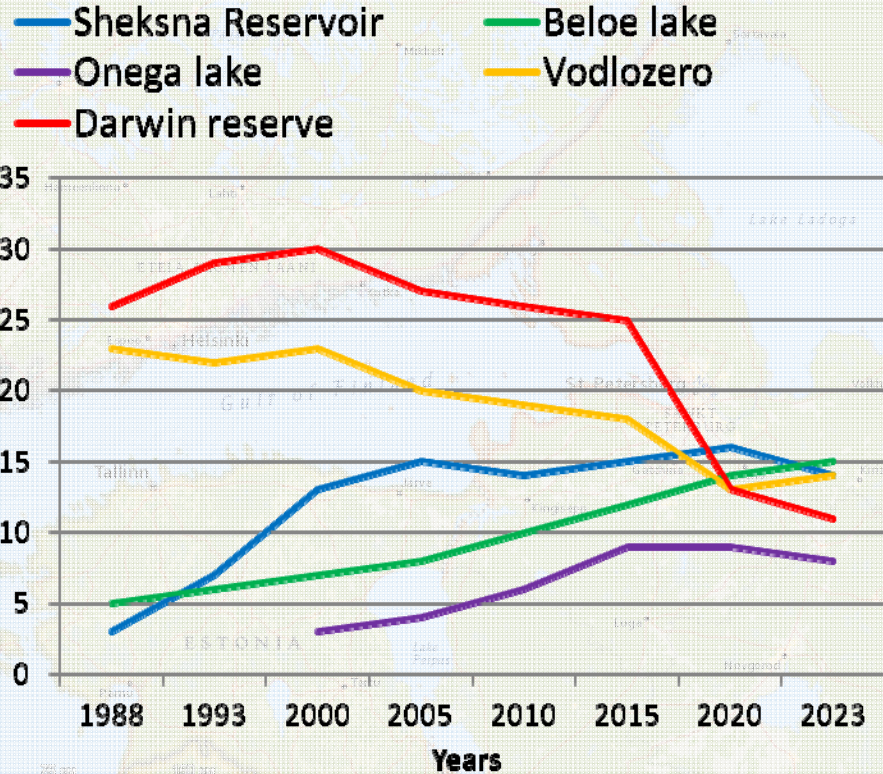
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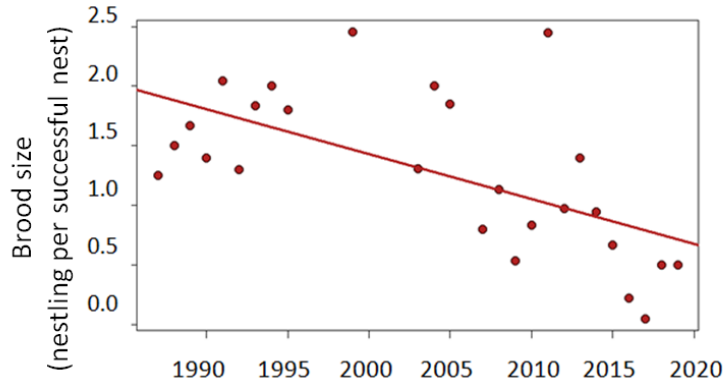


Long-term dynamic of osprey numbers within large breeding aggregations in North-West Russia

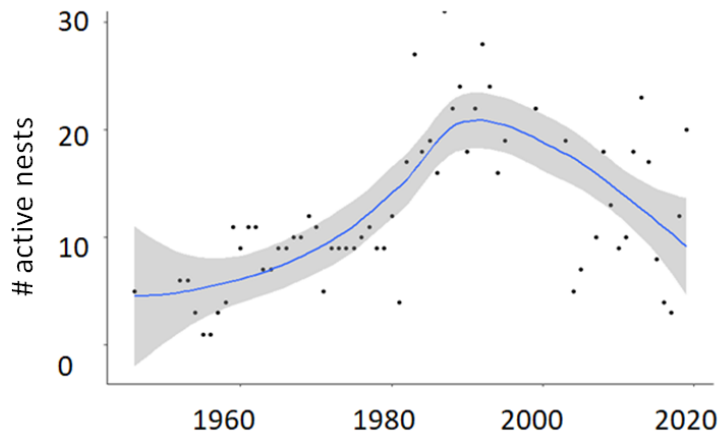


Number and breeding success of osprey in the Darwin Nature Reserve

1987-2022

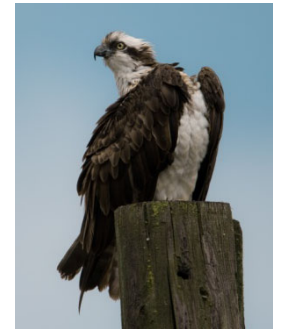
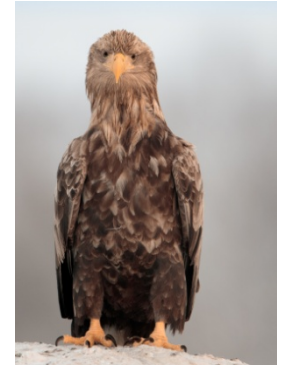
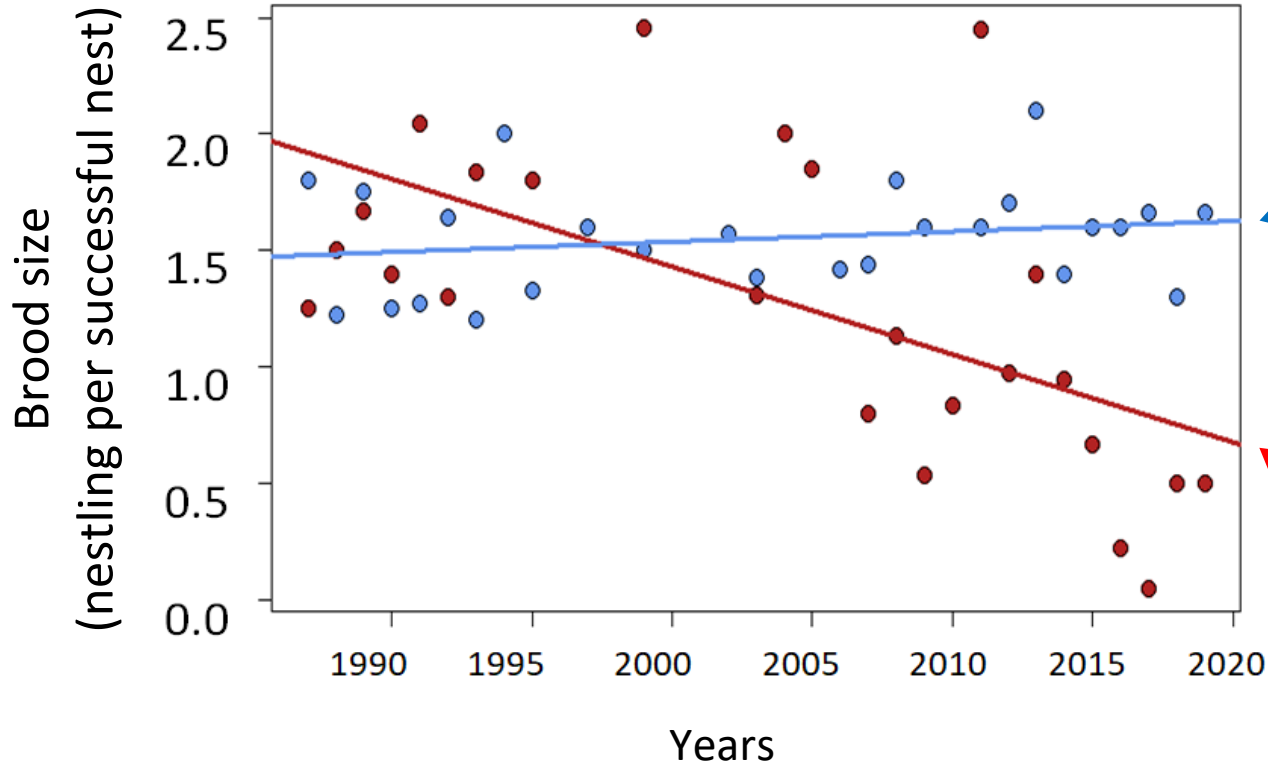


1946-2022



Dynamics of brood size of osprey and white-tailed eagle in the Darwin Nature Reserve

WHITE-TAILED EAGLE

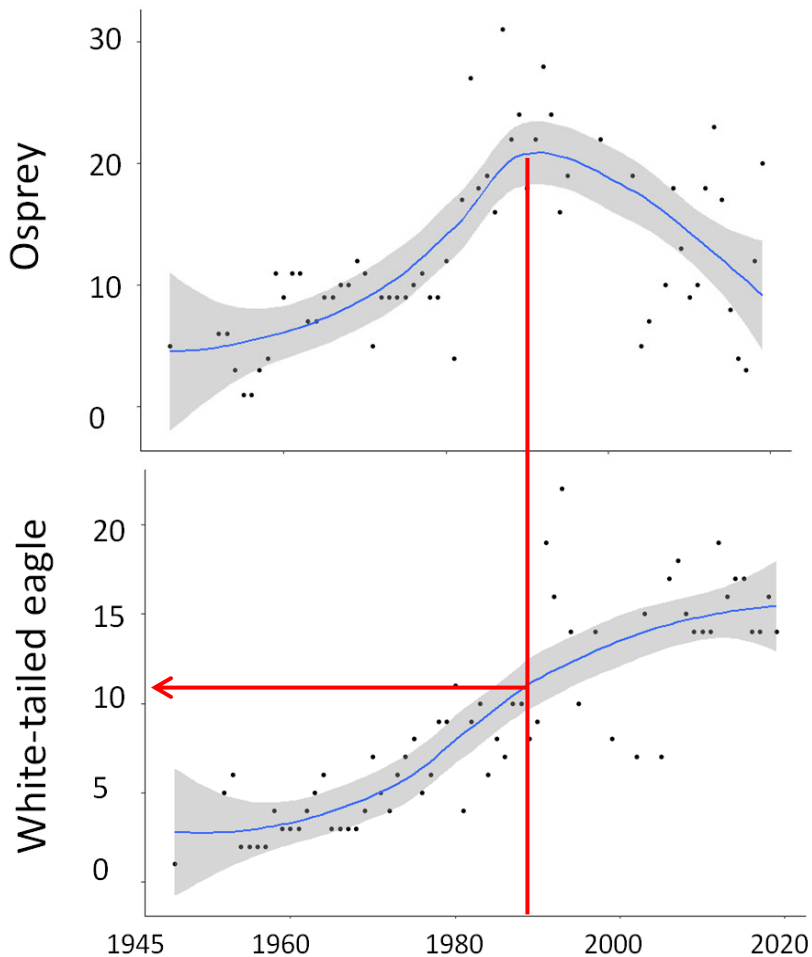


OSPREY

The «evolution» of the number of active nests of white-tailed eagle and ospreys in Darwin reserve

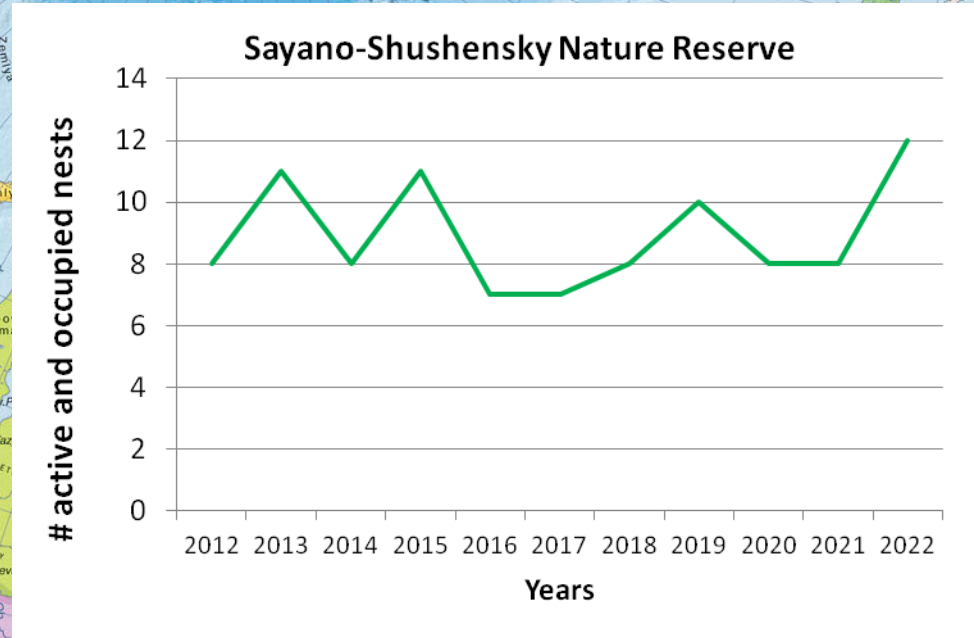


Active nests



RUSSIA

scale 1: 5 000 000



RUSSIA

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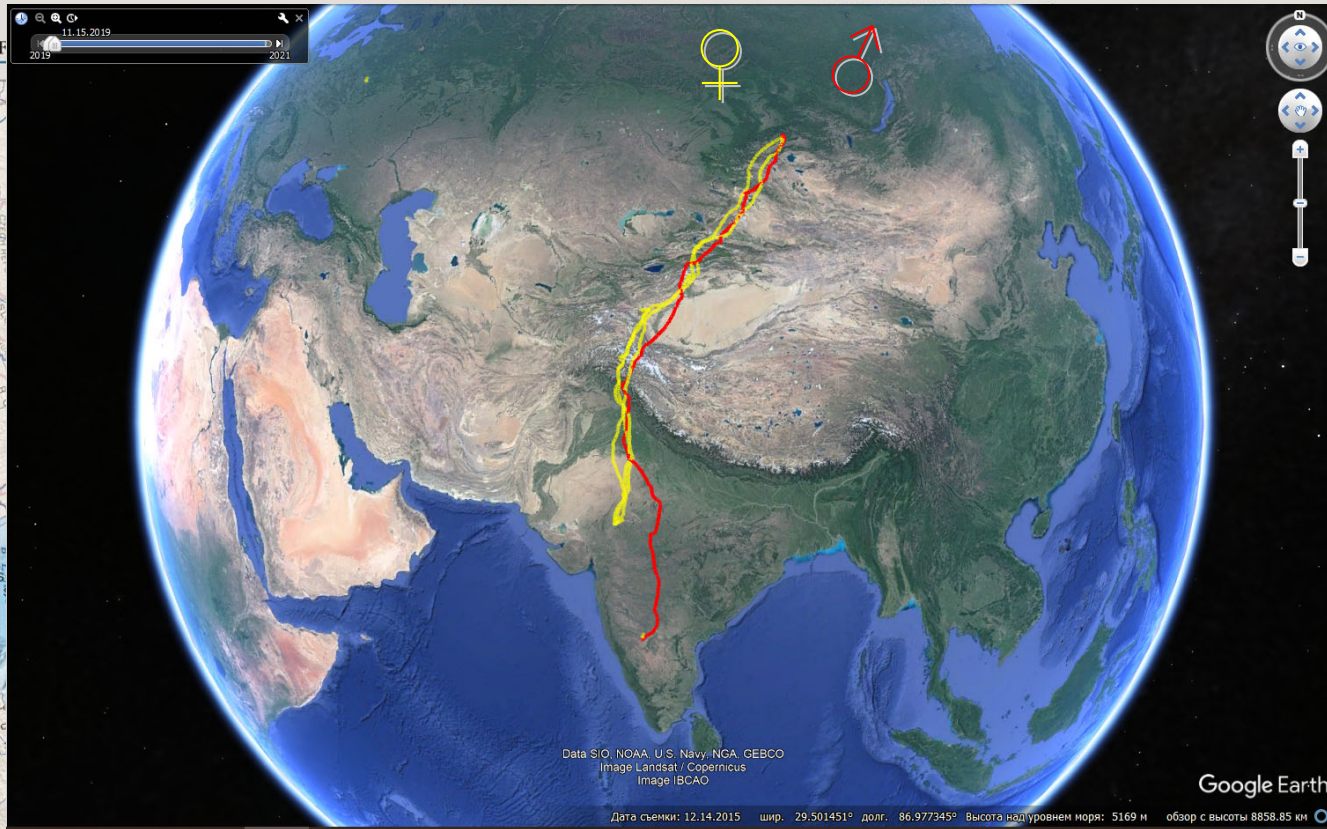
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Usina – adult ♀
Serzhik - adult ♂

Sayano-Shushensky
Nature Reserve - 2019



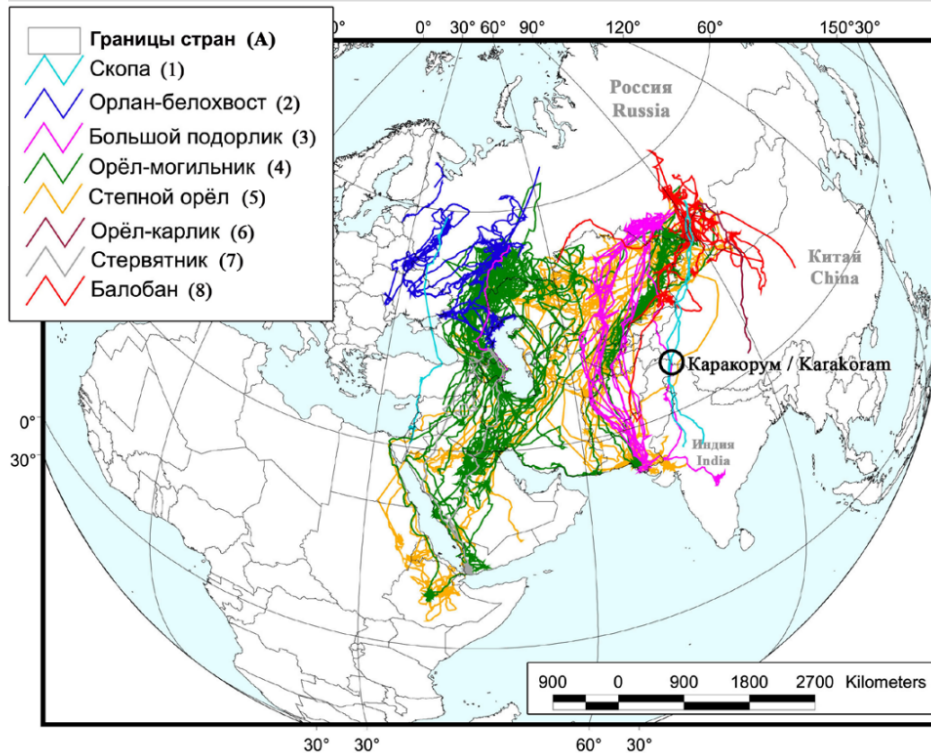


Usina – adult ♀
Serzhik - adult ♂

**Sayano-Shushensky
Nature Reserve - 2019**



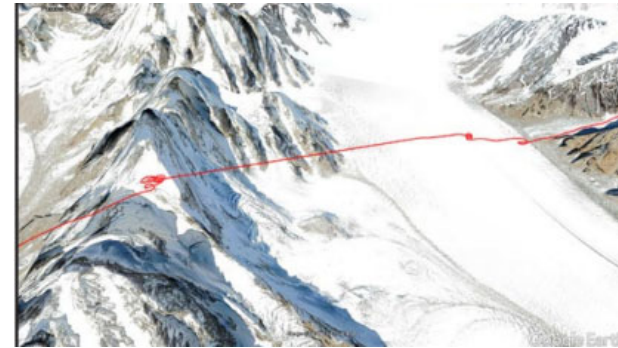
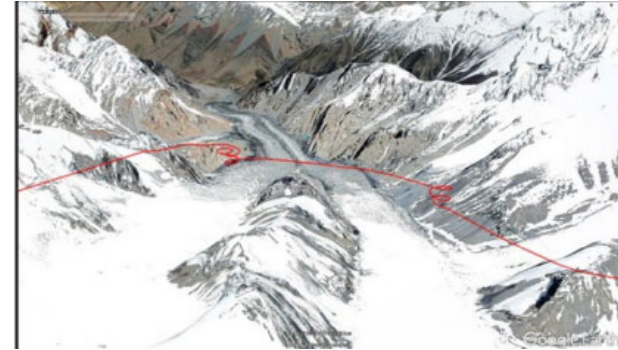
The New Bottleneck on Birds of Prey Autumn Migration Route through the Karakoram



cherrug).

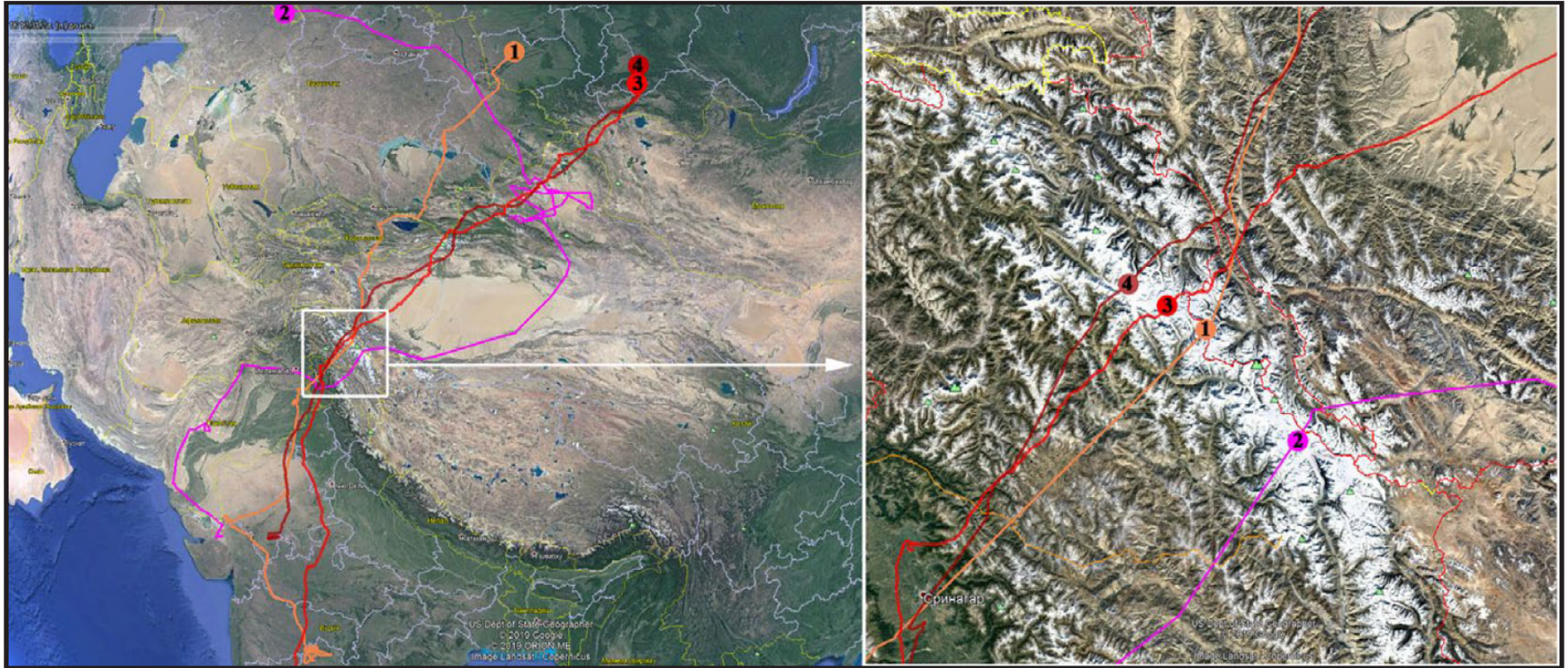
Fig. 1. Migration routes of birds tagged with GPS/GSM dataloggers in 2013–2019 from: Karyakin et al., 2019. Legend: A – borders of countries; 1 – Osprey (*Pandion haliaetus*); 2 – White-Tailed Sea Eagle (*Haliaeetus albicilla*); 3 – Greater Spotted Eagle (*Aquila clanga*); 4 – Eastern Imperial Eagle (*Aquila heliaca*); 5 – Steppe Eagle (*Aquila nipalensis*); 6 – Booted Eagle (*Hieraaetus pennatus*); 7 – Egyptian Vulture (*Neophron percnopterus*); 8 – Saker Falcon (*Falco cherrug*).

Analysis of the tracks made it possible to identify a new “bottleneck” on the autumn migration route of birds of prey through the Karakoram mountain system (a 200 km area between the upper reaches of the Shimshal and Nabra rivers).

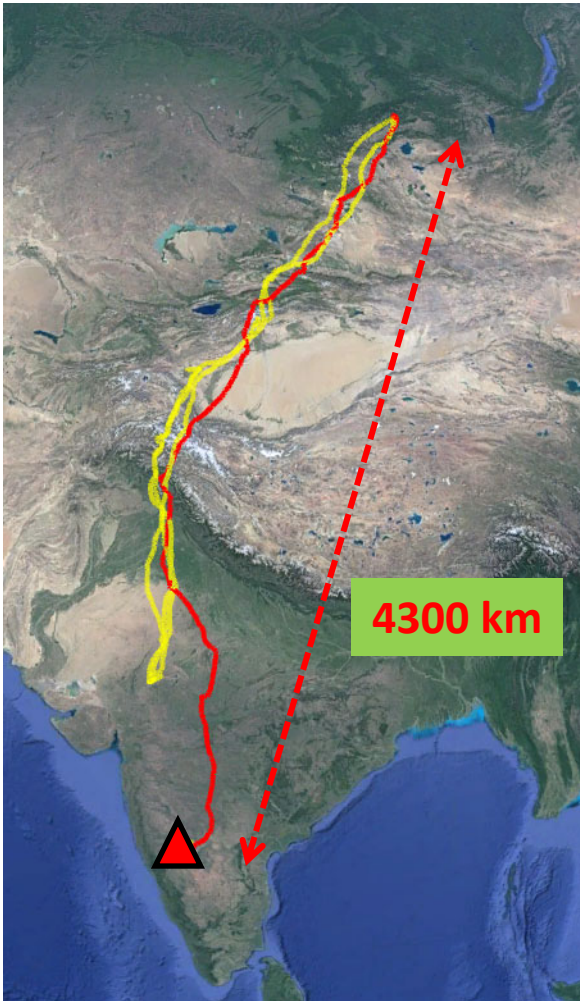


The migration of male of the Osprey (*Pandion haliaetus*) over the ice region of Karakoram on September 30th, 2019.

The migration routes of the Greater Spotted Eagle (1), the Steppe Eagle (2) and Osprey (3, 4) through the Karakoram



The male died on a power line in a wind farm on the
Deccan plateau
(4,300 km from the nesting site)







ವಲಸೆ ಬಂದು ಪ್ರಾಣಿತ್ವ ರಷ್ಯಾ ಹಕ್ಕಿ

ಆಸ್ಟ್ರೇ ಹಕ್ಕಿಗೆ ಸ್ಯಾಟಲೈಟ್ ಟ್ಯಾಗ್ ಅಳವಡಿಕೆಯಿಂದ ಬಯಲು | ಇಳಕಲ್ ನಲ್ಲಿ ಪತ್ತೆ

■ ರುಷ್ಯಾದಲ್ಲಿ ಕುಂಬಳೆಗಿ ವ್ಯಕ್ತವಾದ ವಿದ್ಯುಧಾರಣೆಗೆ ಸಿಕ್ಕಿ ಸತ್ತಿದ್ದ ಈಗ... ಇದು ಕೆಲವು ಸಿ.ಪಿ.ಟಿ.ಬಿ.ಎಸ್.ಎಂ.ಎಲ್. ಅಂದರೆ ಕೆಲವು ದಿನಗಳ ನಂತರ ಈ ಸಮಯದವರೆಗೆ ಬಿಟ್ಟು ಕಾಣಿಸಿಕೊಂಡು ಆದರೂ ಮತ್ತೆ ಕಾಣಿಸಿಕೊಂಡು ಬಂದಿರಬಹುದು. ಈ ಸಂದರ್ಭದಲ್ಲಿ ಈಗಿನ ವಿದ್ಯುತ್ ಸಂಪನ್ಮೂಲ ಇಲಾಖೆಯು ಈ ಪ್ರಾಣಿಯನ್ನು ಕಂಡು ಹಿಡಿದು, ಅದನ್ನು ಕರ್ನಾಟಕಕ್ಕೆ ತರಿಸಿ, ಅಲ್ಲಿ ಅಧ್ಯಯನ ಮಾಡುವುದು ಉತ್ತಮವಾಗಿರುತ್ತದೆ. ಈಗಿನ ವಿದ್ಯುತ್ ಸಂಪನ್ಮೂಲ ಇಲಾಖೆಯು ಈ ಪ್ರಾಣಿಯನ್ನು ಕಂಡು ಹಿಡಿದು, ಅದನ್ನು ಕರ್ನಾಟಕಕ್ಕೆ ತರಿಸಿ, ಅಲ್ಲಿ ಅಧ್ಯಯನ ಮಾಡುವುದು ಉತ್ತಮವಾಗಿರುತ್ತದೆ.

■ ಬಾನ್ಸಾದಿ ಹುಡುಕಿಕೊಂಡು ರಷ್ಯಾದಿಂದ ಬಂದ ವಿದ್ಯುಧಾರಣೆಗಾಗಿ ಈಗಿನ ವಿದ್ಯುತ್ ಸಂಪನ್ಮೂಲ ಇಲಾಖೆಯು ಈ ಪ್ರಾಣಿಯನ್ನು ಕಂಡು ಹಿಡಿದು, ಅದನ್ನು ಕರ್ನಾಟಕಕ್ಕೆ ತರಿಸಿ, ಅಲ್ಲಿ ಅಧ್ಯಯನ ಮಾಡುವುದು ಉತ್ತಮವಾಗಿರುತ್ತದೆ.



■ ಜೋಡಿ ಹಕ್ಕಿಗಳನ್ನು ಗಿರೀಶ್ ಅಂಜನಿ ಸೇರಿದ ಅಭಿಗತ ಪ್ರಮುಖ ಅಧಿಕಾರಿಗಳ ಮೂಲಕ ಜಾರಿಯಲ್ಲಿ ತುಂಬು ದಿನಗಳ ಕಾಲ ಕಂಡು ಹಿಡಿಯುತ್ತದೆ. ಕೆಲವು ಸಿ.ಪಿ.ಟಿ.ಬಿ.ಎಂ.ಎಲ್. ಅಂದರೆ ಕೆಲವು ದಿನಗಳ ನಂತರ ಈ ಸಮಯದವರೆಗೆ ಬಿಟ್ಟು ಕಾಣಿಸಿಕೊಂಡು ಆದರೂ ಮತ್ತೆ ಕಾಣಿಸಿಕೊಂಡು ಬಂದಿರಬಹುದು. ಈ ಸಂದರ್ಭದಲ್ಲಿ ಈಗಿನ ವಿದ್ಯುತ್ ಸಂಪನ್ಮೂಲ ಇಲಾಖೆಯು ಈ ಪ್ರಾಣಿಯನ್ನು ಕಂಡು ಹಿಡಿದು, ಅದನ್ನು ಕರ್ನಾಟಕಕ್ಕೆ ತರಿಸಿ, ಅಲ್ಲಿ ಅಧ್ಯಯನ ಮಾಡುವುದು ಉತ್ತಮವಾಗಿರುತ್ತದೆ.

■ ಆಯ್ದುನು ನಂದಿದ್ದವರು ರಷ್ಯಾದ ಮರೀಚಿಗಾರ್ ಬಾಬುಷ್ಕಿನ್, ಅನೇಕ ಕ್ರಮಗಳ ನಂತರ ಈ ಪ್ರಾಣಿಯನ್ನು ಕಂಡು ಹಿಡಿದು, ಅದನ್ನು ಕರ್ನಾಟಕಕ್ಕೆ ತರಿಸಿ, ಅಲ್ಲಿ ಅಧ್ಯಯನ ಮಾಡುವುದು ಉತ್ತಮವಾಗಿರುತ್ತದೆ.

ಬೆಳಗ್ಗಿನಲ್ಲಿ ತಿರುಪತಿ, ಅನೇಕ ಕಡೆಗಳಿಗೆ ಮುಖ್ಯ ರಸ್ತೆಗಳ ಸಹಾಯದಿಂದ ಉಡುಪಿ ಜಿಲ್ಲೆಯ ಸುತ್ತಲಿನ ಪ್ರದೇಶದಿಂದ ಈ ಪ್ರಾಣಿಯನ್ನು ಕಂಡು ಹಿಡಿದು, ಅದನ್ನು ಕರ್ನಾಟಕಕ್ಕೆ ತರಿಸಿ, ಅಲ್ಲಿ ಅಧ್ಯಯನ ಮಾಡುವುದು ಉತ್ತಮವಾಗಿರುತ್ತದೆ.

ಗಂಡಿನ

ಕೊಡವರೊಂದಿಗೆ ಅನೇಕ ಜನರು ಈ ಪ್ರಾಣಿಯನ್ನು ಕಂಡು ಹಿಡಿದು, ಅದನ್ನು ಕರ್ನಾಟಕಕ್ಕೆ ತರಿಸಿ, ಅಲ್ಲಿ ಅಧ್ಯಯನ ಮಾಡುವುದು ಉತ್ತಮವಾಗಿರುತ್ತದೆ.

Male Osprey from Russia dies on way to K'taka

Rakesh Goswami
@rakesh.goswami@ht.com

JAIPUR: A male Osprey from Russia had reportedly fallen victim to the windmill on his way to Karnataka, separating him from the female who is nesting at a wetland near Udaipur in southern Rajasthan, said raptor researchers tracking a couple of the fish-eating bird that reached India in October.

The female halted at a wetland near Udaipur in southern Rajasthan, said Nirave Bhatt, who does research on raptors at Little Rann of Kutch in Gujarat. Hewas tracking the Osprey couple since it began the migration in September from Russia. "The male, named Serzhik, and the female, called Usina, were satellite tagged in the Sayano-Shushensky State Nature Reserve in Russia. The birds came to India to pass the harsh winter of their homeland. But one of them is dead," he said.

Ospreys are diurnal, fish-eating birds of prey. Ornithologists say these raptors bond for life and this pair reared its brood



Ospreys are diurnal, fish-eating birds of prey that bond for life. DHARMENDRA KHANDAL AND MIROSLAV BABUSHKIN

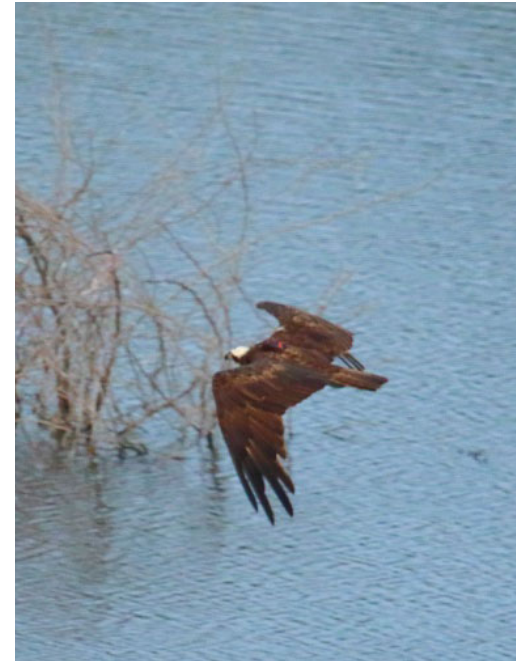
before starting the migration. "Usina is unaware about the death of its male partner. The bird reunite on the same breeding ground when they return from migration, most of the times of the same nest," Bhatt said.

He was in touch with Russian researchers Igor Karyakin, Elena Shikalova, Urmas Sellis and Gunnar Sein, who are trying to understand the reason for decline of Osprey population in Russia. At the Second International Scientific and Practical Conference on 'Eagles of the Pale-arctic: Study and Conservation', researcher suspected that the problem was the place of their migration to escape harsh Russian winters. To understand the problem, the researchers for the first time installed satellite linked collars

on a pair of ospreys. "The goal of satellite tagging these birds was to discover the reason for their precipitous decline in the Altai-Sayan region, one of the most inviolate parts of Russia," said Igor Karyakin, who visited India after the death of the male Osprey. Rajasthan-based conservation biologist Dr Dharmendra Khandal, who visited Udaipur wetland, where the bird was nesting, said "she was doing fine." "Nirav, who was in touch with the Russian scientists, asked me to track the bird in Rajasthan," Khandal said. The researchers said both birds independently travelled about 300 to 400 kms per day for 15 days, approximately 5,000 kms to reach their wintering grounds. The male osprey, Serzhik, went further south and reached Madhya Pradesh where he stayed for about 15 days. He then travelled even further south to Karnataka near the town of Ilkal and my sisterly died there. Bhatt said.

"Last week, Russian researcher Igor Karyakin and Elvira Nikolenko personally visited the area to understand the reason for the death and found that the area had too many windmills and the bird fell into the turbine turbulence zone of the wind turbine, was she-shocked and could not continue the flight, although it remained alive," Bhatt added. "It rose from the ground and sat on the support of the power transmission line, where it was killed by electric shock. This detail they recorded because of the satellite tag," Bhatt said, quoting the Russian researchers. He said the corpse was missing and may have been taken away and eaten by feral dogs; its feathers were found under an electric pole which was unsafe for birds. The cause of death is assumed to be collision or electrocution. Ornithologists say wind mills and power lines are an unmitigated menace that kills a large number of local birds as well as migrants.

The female spent two winters in the southeast of Rajasthan
(3500 km from the nesting site)



During spring migration in 2021, she died in fish ponds in China



RUSSIA

scale 1: 5 000 000



In 2020-2021 we found 14 osprey nests



Magadan Nature Reserve
2020-2021

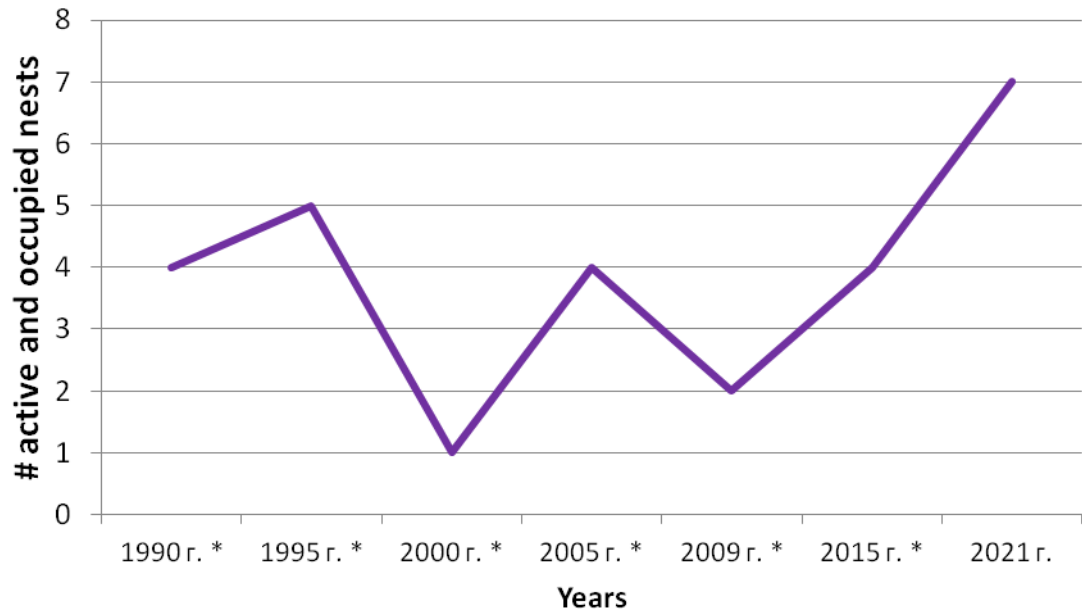


RUSSIA

FEDERAL DISTRICTS

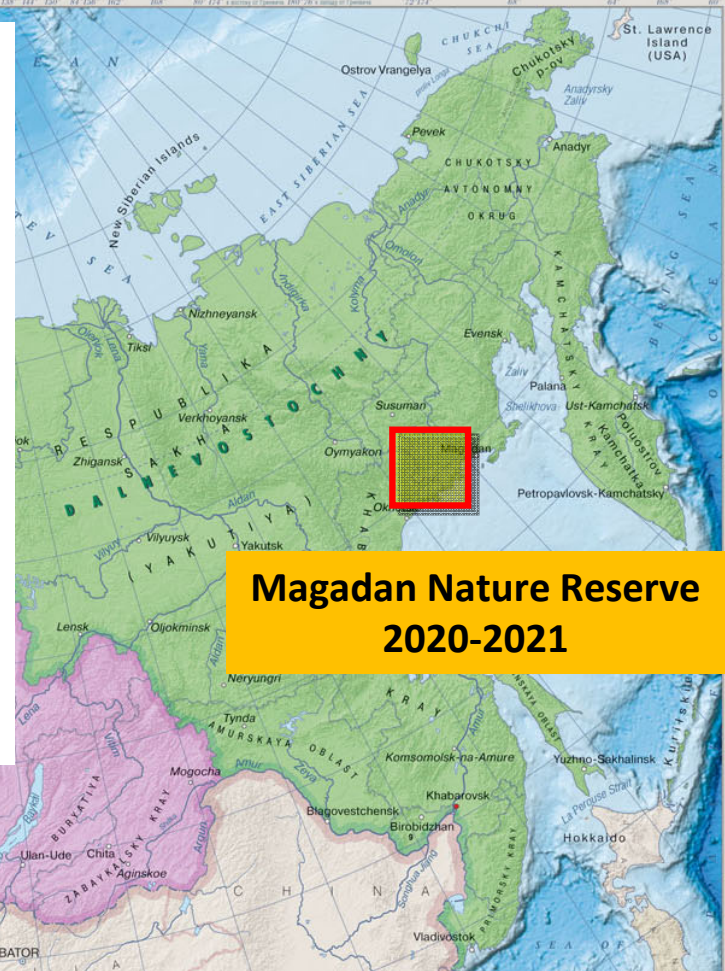
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Magadan Nature Reserve



* Кречмар, 2011

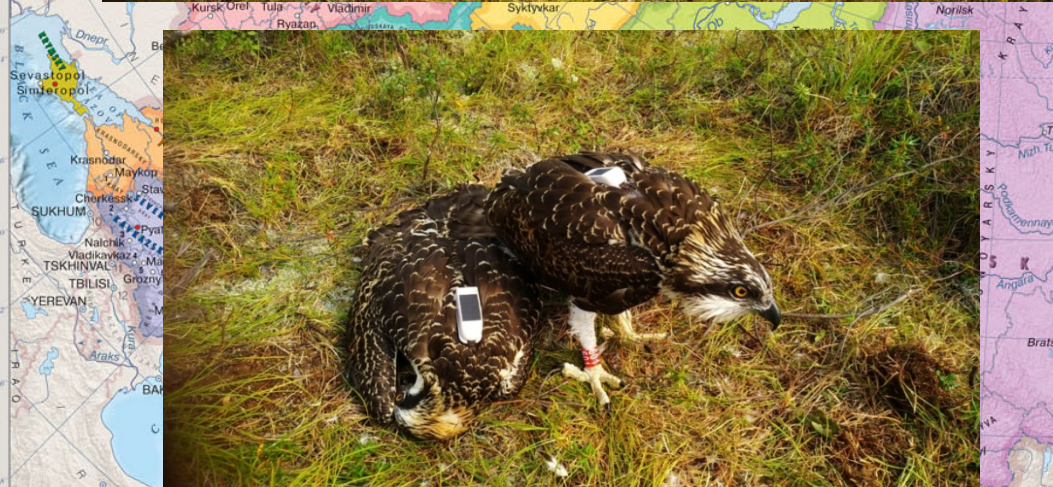
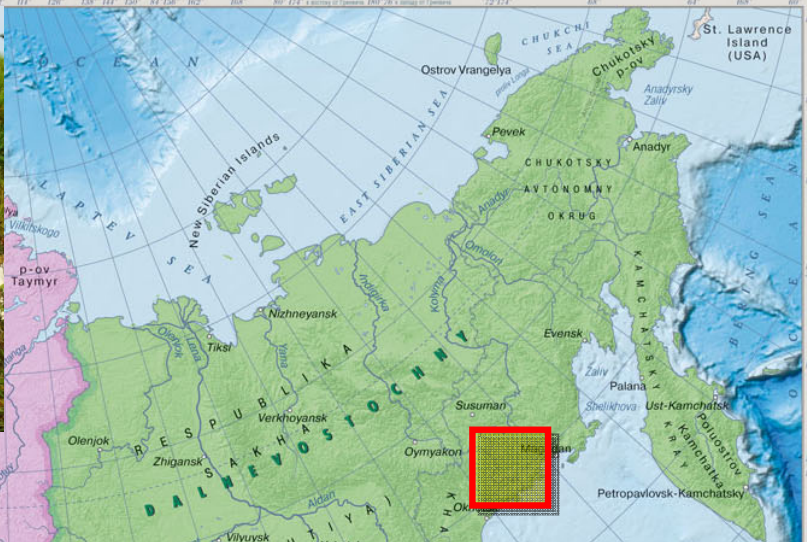
**Magadan Nature Reserve
2020-2021**



RUSSIA

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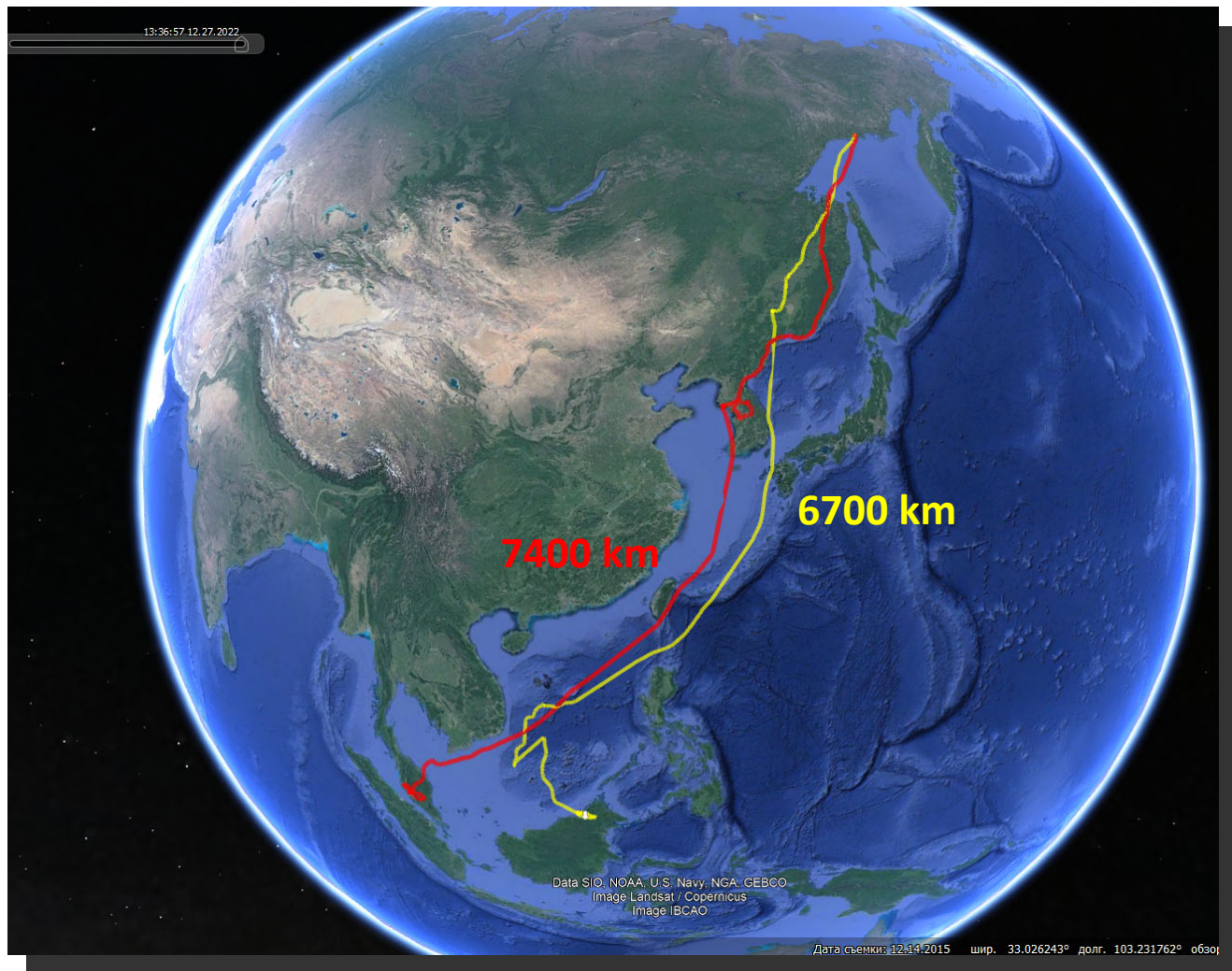


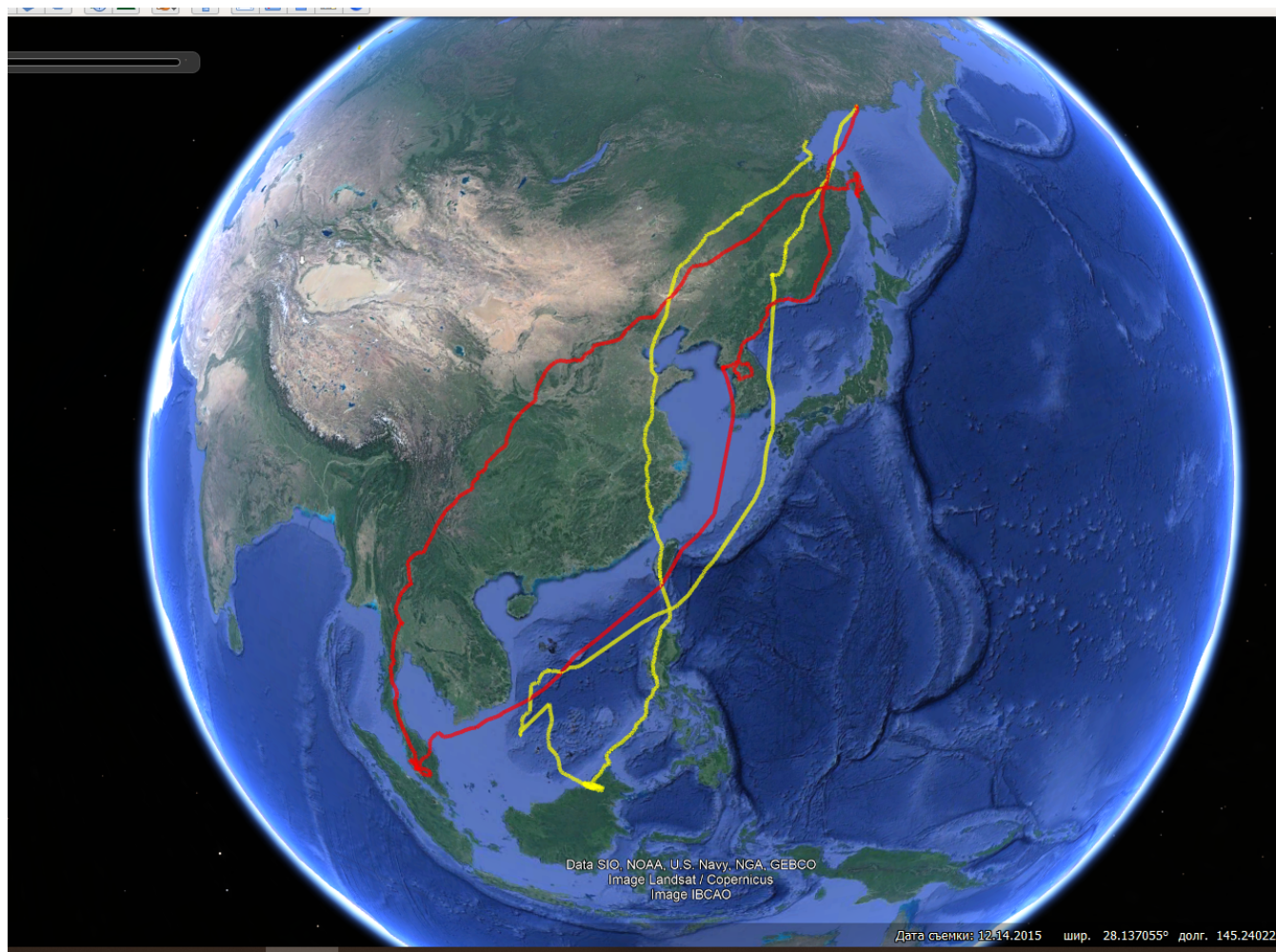
**Magadan Nature Reserve
2020-2021**

Movement of two young Magadan ospreys 2021-2022



Wintering sites are located in Malaysia: of **6700** and **7400** km from the place of birth

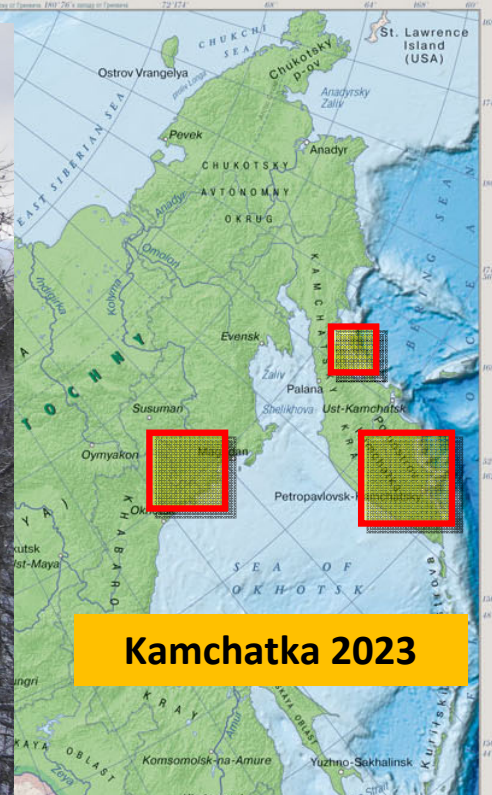




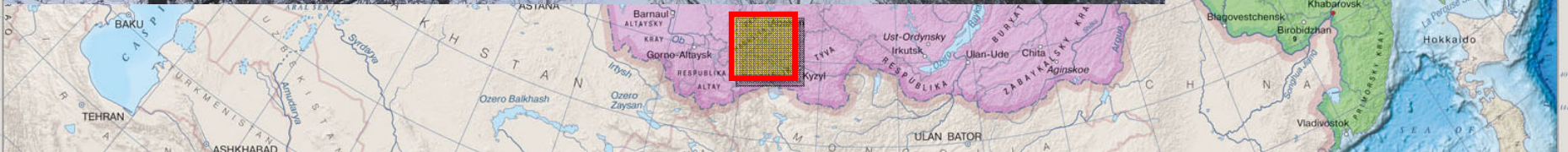
RUSSIA

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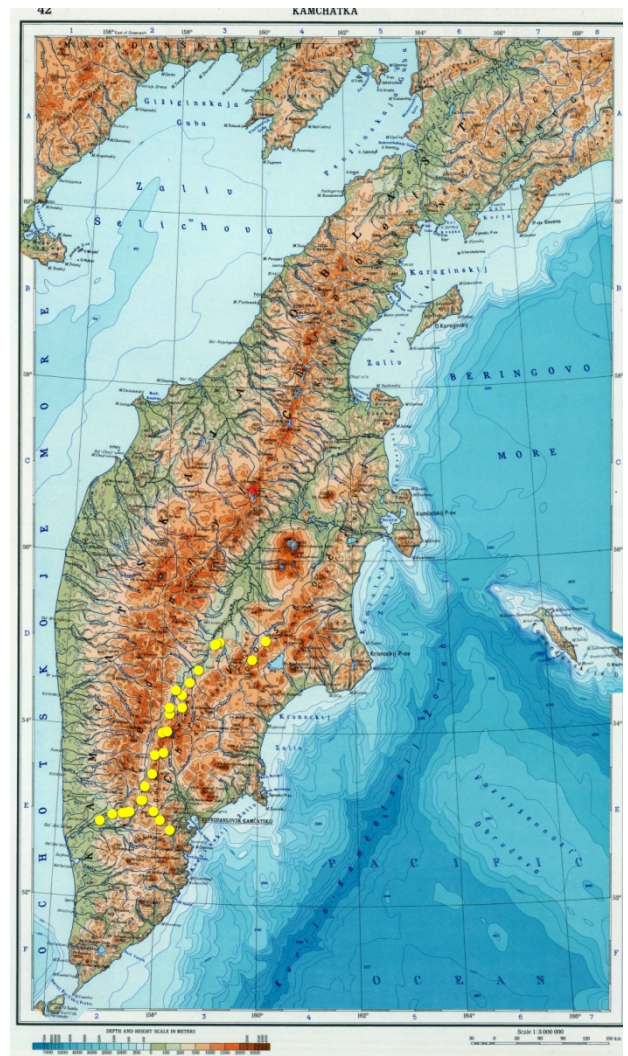
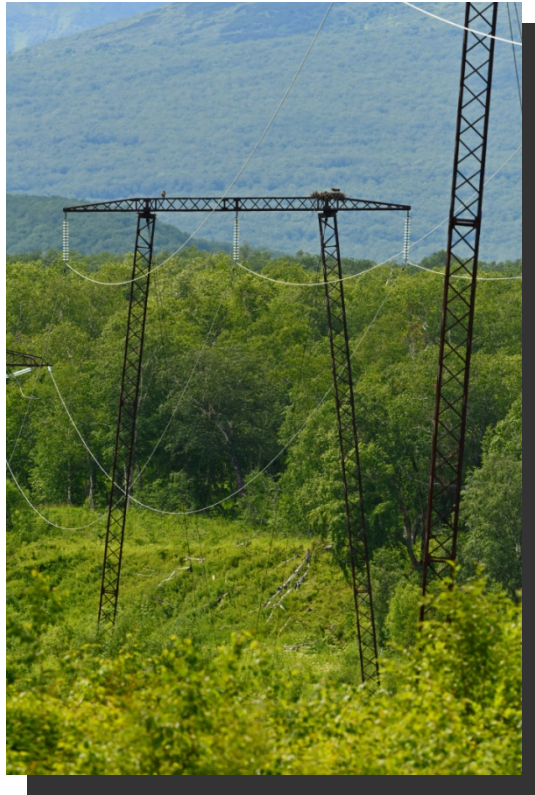
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Kamchatka 2023



**Unique “population” of osprey on power poles in the central part of Kamchatka:
42 nests (16 active + 15 occupied nests)**

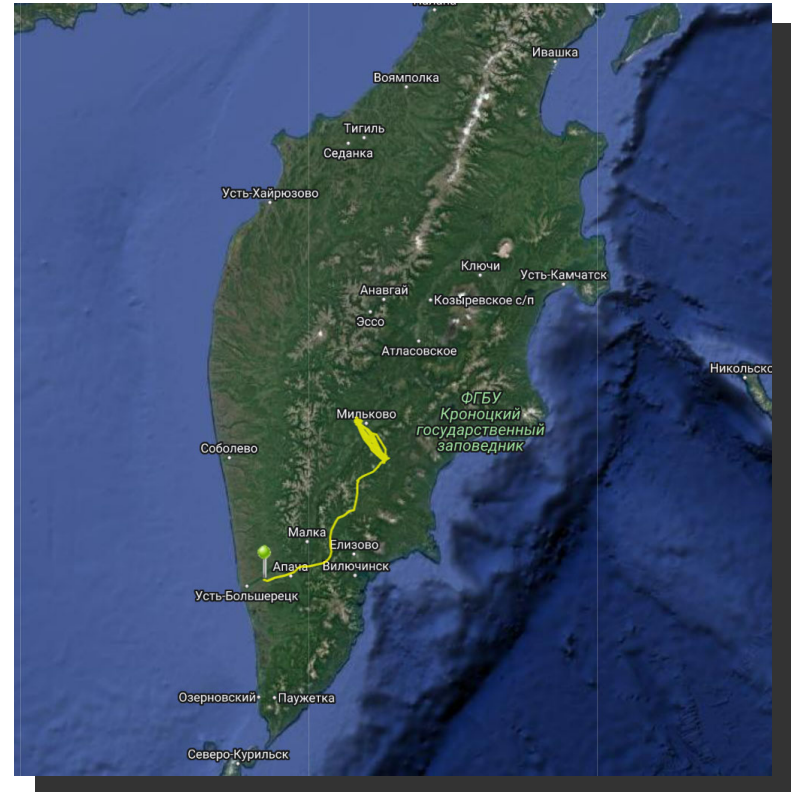




August 7, 2023



In August 2023, two adult ospreys (male and female) were tagged with GPS-GSM-trackers



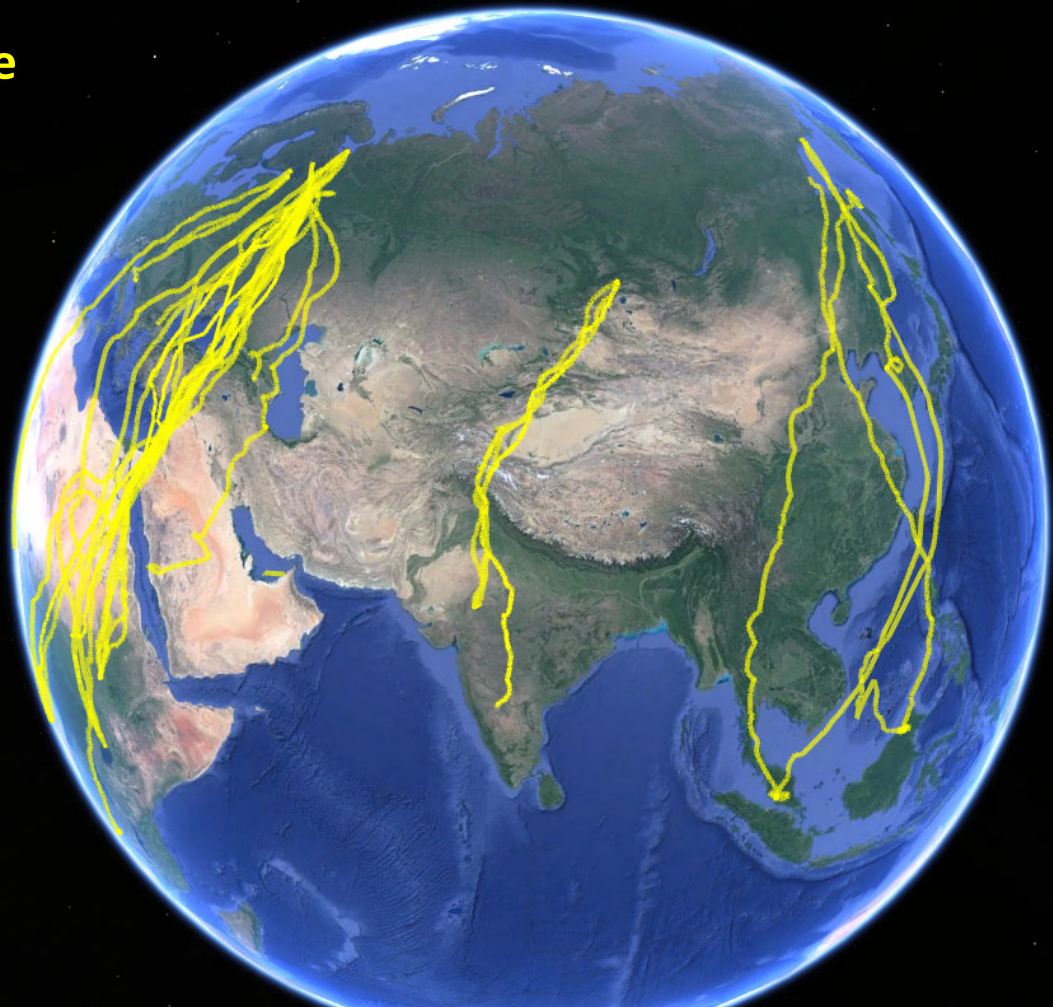
In 2019-2023 GPS-GSM trackers are installed on 16 ospreys:

**European part of Russia
(3 adults and 7 young)**

**Magadan Nature Reserve
(2 young)**

**Sayano-Shushensky Reserve
(2 adult)**

**Kamchatka
(2 adult)**



CAUSES OF DEATH

Cause of death	Number of adults and young birds		Place of death
	ADULT	YOUNG	
Electric shock	0	1	Saudi Arabia
Wind generator	1	0	India
Poaching	0	1	Russia
(Fistshot)	1	1	China,
Impact with a cell phone tower	1	0	Armenian
TOTAL:	3	3	5 countries



38% of birds died due to human fault



Data: SIC, NOAA, U.S. Navy, NGA, GEBCO
Image: Landfall, Geometricus
Image: IBCAO

Birds know no boundaries

«OSPREY F67»



with this ring..
The birding ties that bind

TEXT & PHOTOGRAPHS MIKE BUCKHAM

Most tales that involve a convoluted plot with unlikely twists and turns and a contrived ending are usually found in a Jane Harper novel or an M. Night Shyamalan movie, but this one is real and involves two Russian Western Ospreys.

The Western Osprey *Pandion haliaetus* is a globally widespread species, resident in tropical climes but migratory in the higher latitudes. The migrant/Resident population breeds in Europe, with the birds dispersing into Africa, predominantly West Africa and to a lesser extent South Africa. We see a reasonable number of them in our estuarine and open water bodies in summer and, for me, it is always special to see one.

Just as I got the boat onto the pier as we were mooring up the Kromme River, I noticed our summer holidays in

Kromme River estuary. The mouth of the river opens into the Indian Ocean and is a perfect overwintering spot for Western Ospreys as the water is clear and the fish life prolific. I always have my camera with me on the boat just in case we get decent views of an osprey for any other bird, for that matter, which is exactly what happened when we headed upriver on 13 December 2021.

It was only later that my son Adam, while scrolling through my photos, noticed that one of them showed red and



South Africa we have SARFENG which maintains the background for locally ringed birds, but I wasn't sure that they would know the background of a bird that I assumed had been ringed in Europe.

Within a few days I had a response from fellow birder Stewart MacLachlan, from South Africa. He had posted my image on an osprey Facebook page requesting information, where I received an immediate response from Ronie Shikha, an active osprey ringer in Scotland who follows our local ringers in the hope of recovery of birds that has his ring. This search one of her birds, but she immediately recognized the form and numbering of the ring and knew it was a Russian-ringed bird. She sent the photograph to the Russian Raptor Research and Conservation Network and the info received an immediate response from Igor Karpatkin, who confirmed it was one of theirs. He then requested details as to how he could complete the necessary information on the ring recovery report. I daily use them, indicating the time and

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I had provided for the ring recovery and was obviously of great interest to the Russians. Far more interesting to me, however, was the first section, which contained the details of when the bird was originally ringed. It was a male bird, ringed on 2 July 2014 as a nestling (about 26 days old) on a nest at coordinates N 34.52 E 17.63 in Valgula in Dania by ringer Minnie Boshoff. That meant F67 was now seven and half years old and was catching fish in an estuary about 10-15 kilometers away from where he was born. It was quite remarkable to have this information about a bird that had flown significantly more than half-way across the world and was now connecting two borders at each end of its journey.

That, however, is not where the story ends.

In subsequent correspondence with Ronie, she remarked that F67 was only a Russian-ringed bird in South Africa and so it was a significant piece of a noteworthy migration puzzle. She went

above. The distance between F67's nest site and our breeding landing grounds (shown left). The magnified photo that got the ball rolling on finding the origin of F67.



Thank you for your
attention!

