SAVING THE SPOON-BILLED SANDPIPER
A unique wader with a spatulate bill whose function is not yet understood.

An enigmatic and charismatic species which has grasped the imagination of birders, conservationists, local people and schoolchildren all over the world.

A flagship for intertidal wetland conservation in the world’s most threatened flyway – the East Asian – Australasian Flyway

Photo: Baz Scampion

8,000 km
Over 50 million migratory waterbirds use the flyway.

62% of populations are in decline or extinct.

50 species are considered at risk of global extinction.
Over 80% of East and Southeast Asia’s wetlands classified as threatened.

In China and South Korea, over 50% of intertidal wetlands lost to reclamation.
By 2005, the global population had declined by 70% to just 350–380 pairs.
In 2009, only four nests could be confirmed at Meinypil’gyno, the core breeding site in Russia.

A dire situation.

The spoon-billed sandpiper’s long-term decline has been caused by the loss and degradation of its staging sites.

Extensive reclamation in the Yellow Sea, including 400km² of tidal flats at Saemangeum, previously a key staging site.
Subsistence hunting and other illegal killing on its non-breeding sites accelerated that decline.
WWT, with a large number of international partners, took action to prevent extinction.

By:

1. Establishing a conservation breeding programme.
2. Headstarting in Russia.
3. Reducing killing at non-breeding sites.
4. Reducing the impacts of Yellow Sea reclamation.
5. Identifying / protecting unknown breeding, staging and wintering sites.
In 2011, WWT embarked on an ambitious expedition to the Russian arctic to rescue eggs and start a conservation breeding programme.
With wellies and binoculars (and over a tonne of avicultural equipment) a small team got to the breeding grounds on 27 May.

Photo: Martin McGill / WWT
A dead female was found next to a predated nest on 16 June.

Photo: Martin McGill / WWT
But the season improved and in total 25 eggs were found.

Photo: Martin McGill / WWT
Eggs (12) and chicks (8) were transported to Anadyr on the Heritage Expeditions polar vessel, the Spirit of Enderby.

Photo: Katie O'Reilly / Heading South
On to Moscow, London and Slimbridge.
179 days after the team left for Russia, they returned with 13 spoon-billed sandpipers.
17 more birds were added to the population in 2012.

Over the next 3 years, there were signs of breeding but no eggs.
In 2016, two pairs laid eggs from which two chicks hatched but both died within days.

Photo: Ben Cherry / WWT
2017 – despite territorial singing and nest scraping no eggs were laid - because both of the 2016 breeding males had died.

2018 – 2 fertile eggs, 1 chick fledged, but died in night fright accident.

2019 – 3 fertile eggs, 3 hatched, 2 fledged and are still alive.

Captive flock now comprises 14 birds (7 males, 5 females and 2 unsexed juvs – DNA results due imminently)
We’re hoping both of these are females!
Spoon-billed sandpiper recovery: headstarting

It’s a numbers game

We can fledge >5 times more chicks
By headstarting chicks we:

1. Provide a boost to the small population.
2. Buy time for conservation measures to take effect.

Photo: Roland Digby / WWT
In 2012, headstarting was piloted and nine spoon-billed sandpipers were released at Meinypil’gyno.
Seven years later, we are releasing 20-30 birds/year and have released 186 in total – ca. 20% of wild productivity.
Headstarted birds have been re-sighted over 800 times in 7 countries.

26% of all headstarted birds have been seen at least once, on migration or at wintering sites.

20 birds have returned to breed at Meinypil’gyno, 2014–2019.
Headstarted birds are resighted at the same rate as wild birds.

We think headstarted birds are surviving as well as wild birds, but further analysis is needed.

In 2017, we had the first record of headstarted birds breeding together and rearing chicks.

Photo: Zhang Xiaolei
Elsewhere in the flyway, work has been undertaken to reduce illegal killing.

Myanmar

Awareness raising and hunting mitigation.
Elsewhere in the flyway, work has been undertaken to reduce illegal killing.

Bangladesh
Awareness raising, hunting mitigation and environmental education.
Elsewhere in the flyway, work has been undertaken to **reduce illegal killing**.

**Southern China**

Increased law enforcement, awareness raising and environmental education.
Advocacy at a variety of scales to increase awareness of reclamation and save sites.

Flyway scale
IUCN Resolution 28
Advocacy at a variety of scales to increase awareness of reclamation and save sites.

Yellow Sea coast
Chinese government has banned intertidal reclamation.

Key sites have been designated as a World Heritage Site.
Satellite tracking to identify staging and wintering sites – Autumn 2016

Microwave Telemetry Inc. developed a 2g solar PTT tag, small enough for tracking spoon-billed sandpipers.

Tags were fitted to three wild, adult spoon-billed sandpipers in October 2016 at the Tiaozini mudflats in Jiangsu, China.

ET just after tagging © Ewan Weston
Satellite tracking to identify staging and wintering sites – Autumn 2016

- Four staging sites and three wintering sites identified.
- Overland route to Myanmar confirmed.
- Threats at sites identified (illegal mist netting).
- Local conservationists informed Chinese authorities who removed nets - direct and immediate on the ground action.
ET. Tagged on 4 Oct 2016. Moved south from Jiangsu to the Minjiang Estuary (Fujian) on 24 Oct, then on to Dongshan (Fujian) on 31 Oct, before flying to the Gulf of Mottoma, in 48 hours, between 3 and 5 Nov.

ET at the Minjiang Estuary, Fujian, China on 29 October 2016 © Du Feng-luan / Fujian Bird Watching Society
HU. Tagged on 6 Oct 2016. Moved to Hangzhou Bay on 8 Oct, then on to a site near Xitou (Guangdong) on 24 Oct. Seen at this site near Xitou with several other untagged spoon-billed sandpipers.
CT. Tagged on 6 Oct 2016. Stayed at Tiaozini until at least 7 November, then moved to Zhao’an (Fujian) by 13 November.
Satellite tracking to identify breeding sites – Spring 2017

- Two birds tagged in Jiangsu, China on 29 and 30 April 2017.

- One bird CH (possibly first summer/young adult?) did a loop taking in South Korea, North Korea to the Russian border and flew back to China on 19 June!
Satellite tracking to identify breeding sites – Spring 2017

- The second bird XT initially migrated with CH to South Korea, then headed on to the Russian / N Korean border then continued along the Russian coast to the north of Sakhalin Island.

- On 15 June he made the 800km journey over the Sea of Okhotsk in about 12 hours.

- Then headed another 600km north before ending up about 100km SW in northern Kamchatka on 26 June.

- Spent summer at various sites on the east coast of Kamchatka.

- Stopped transmitting on 23 July.
Satellite tracking to identify staging and wintering sites – Summer 2017

- Three birds tagged in Russia.
- Two birds **Lime 32 and Lime 43** migrated back to Jiangsu where they moulted.
- Third bird **Lime 44** stopped transmitting on west coast of Kamchatka 20 July.
Satellite tracking to identify staging and wintering sites – Summer 2018

- Three birds tagged in Russia.
- Two birds Lime 21 and Lime 07 migrated to North Korea where they moulted.
- Third bird White 1P stopped transmitting on west coast of Kamchatka 26 July.
- Only the second known moultng site identified in North Korea in the DMZ.
There are encouraging signs that conservation measures are working and threats are being addressed:

1. The Chinese ban on any further intertidal reclamation is a game changer that we could not have predicted, even three years ago. The major threat to the entire flyway could have been addressed in a single stroke of Xi Jinping’s pen!

2. Illegal hunting issues in Bangladesh and Myanmar are thought to have been addressed through the provision of alternative livelihoods to local people, although there may still be illegal mist-netting continuing in southern China.

3. The most recent estimates of the global population - 279 breeding pairs (95% C.L. 215 – 342) and 878 individuals of all ages (95% C.L. 676 – 1079) - suggest that conservation efforts, particularly enhanced protection of stopover and wintering areas and measures to reduce mortality caused by hunting, may have stopped or slowed the decline.
But there is more to do. The immediate critical actions are:

- **Protect the Jiangsu coast** via the World Heritage Site process. A truly international effort, led by the RSPB. 2019 Yellow & Bohai Sea World Heritage Conference, Yancheng 28-30 September.

- **Protect the newly discovered moulting site in North Korea.** Half the global population may moult here. Surveys by Pukorokoro Miranda Naturalists’ Trust.

- **Find and protect the missing breeding, staging and wintering sites** – through more satellite tagging. We still don’t know where half the population spend the winter or where ¾ of the birds breed. 5 more tags to be deployed in China next week.

- **Continue headstarting** to increase the population while other threats are being addressed. Headstarting increases the population by 3% p.a.

- **Continue advocacy and hunting mitigation.**

For project updates, visit [www.saving-spoon-billed-sandpiper.com](http://www.saving-spoon-billed-sandpiper.com).
Our work to save the spoon-billed sandpiper would not be possible without the support of our many partners, sponsors, funders and WWT members. Thank you!