

Project Update: October 2015

Following activities of the grant were completed since the last reporting.

Activity 1. Protection of artificial nest sites against clutch and female depredation.

The principal scheme of remote viewing of the artificial nests was ordered and developed. Ready device includes small camera, starter box, remote control, and handy TV set (see picture 1). The wireless camera starts recording and transmitting image to the TV set when the operator approaches the artificial nest to 50-150 m and presses a button on the remote control.



Picture 1. Two remote controls and TV set at the Visitor Centre, Kishinevka village, April 2015.

The camera is transmitting image for 2 min allowing operator to identify artificial nest content: i.e., covered eggs, incubation female, nothing. Two AA batteries are required for the 4-5 weeks of camera work. Forty eight cameras were purchased however the delivery of cameras and other equipment occurred after the proposed date. Late delivery (in mid-April

2015) didn't allowed for all artificial nest sites being equipped with cameras in Kievka R basin. Four artificial tubes and 13 boxes were equipped with cameras.



Picture 2. Female Scaly-sided Merganser incubating a clutch in the tube #144 as recorded by remote controlling camera (date wasn't set up), 3rd May 2015, Kievka R, Primorye, Russia



Picture 3. Twelve ducklings hatched at tube#26 on 11th May 2015. Dry ducklings and female at the nest as recorded by remote controlling camera.

Now the project staff has an opportunity to check artificial nests remotely without disturbance of laying or incubating females. This opportunity will be used in full in spring 2016 when we plan installation of all cameras prior to merganser arrival to breeding sites.

Simple nest protection method was suggested and tested in spring 2015 in Kievka R basin. Wire net with the mesh size of 20 mm was cut to make a spike net (Picture 4).



Picture 4. Wire spike net around the tree with nest box #35. Picture 5. Red (black) squirrel seems do not pass the wire spike net on the tree with nest tube #123. Reconyx camera trap record.

Three electric shock devices were ordered for tricking predators from the potential merganser nests. We didn't have a chance to test this equipment because no predators were reported in spring 2015. All merganser nests in study area hatched young and none was depredated.

Activity 2. Creation of effective artificial nest programme in Changbai Mountains, China.

With nest boxes made from Chevy Volt Battery boxes by General Motors the team led by Peiqi Liu, WWF China, was able to reach a goal: to hatch first ever 11 ducklings in artificial nests in China. This achievement was highlighted widely in media, see following links for the details.

Inhabitat: <http://inhabitat.com/chevy-volt-battery-covers-recycled-as-adorable-nesting-boxes-for-endangered-birds/>

Good Magazine: <http://magazine.good.is/articles/old-batteries-become-new-homes-for-adorable-baby-birds>

Generalmotors.green: [Endangered Ducks in China Find Refuge in Chevrolet Volt Battery Covers](#)

Activity 3. Support of ANP in Bushui NR, Lesser Xingan, China.

All 20 nest boxes were checked in Bishui Nature Reserve, none of them were used by Scaly-sided Merganser in 2015. Bishui Reserve's Conservation manager Li Chengquan and his deputy Wen Yingbin were visiting Kievka R on 25th-28th September 2015 during field trip after SSME SAP workshop and they received training in building and erecting of nest boxes of proper construction.

Activity 4. Collecting of un-hatched eggs and nest lining feathers from all three breeding populations (Primorye, Changbai, Lesser Xingan) in May 2015.

Thirteen and 10 unhatched eggs were collected in Primorye in 2014 and in 2015 accordingly. None have been collected in Changbai Mountains because all eggs from single clutch hatched. Two eggs were collected in Bishui NR and they were lost in refuge's refrigerator.

Activity 5. Analyses of samples for heavy metals.

Total of 33 Scaly-sided Merganser samples were analyzed for heavy metals of them four blood samples, seven feather samples and 22 eggs. No levels exceeding lethal levels were reported. Concentrations of cadmium were considered as exceeding exposure threshold. Other metals were under exposure threshold. Analyses will be done from the eggs collected in 2015.

Activity 6. Scaly-sided Merganser Task Force Meeting and opening of the Visitor Centre.



Single species Action Planning Workshop took place on 23rd-25th September 2015 in Vlad Motor Inn, Vladivostok, Russia. Workshop gathered 17 Task Force members and non-members from China, Russia, South Korea, UK, and USA. Visitor Center was demonstrated to the attendees of field trip (total of 12 attendees) and the opening event took place on 26th September (Picture 6). Participants reported a need of exposition to be designed and created especially for the Visitor Centre to reach a target.

Picture 6. Peter Cranswick, WWT (left), Diana Solovyeva and Sergey Vartanyan, SSME Project-RU, near the Visitor Centre's wall with Centre's sponsor logos engraved.

In addition the Objective Active "incubator" in Zhuravlevka catchment of Rufford Continuation grant of the PI was partly reached in 2015. The Objective was:

Active "incubator" in Zhuravlevka catchment	10-15 nests in artificial nest sites	Scaly-sided Merganser occupies AN in 2013 (1-2 nests) with peak occupation reached in 4-5 years
---	--------------------------------------	---

In 2015 there were three nests of Scaly-sided mergansers in AN on Zhuravlevka R. This was the first year when this "incubator" started to have nests. The Objective Scaly-sided Merganser nesting in AN on Avvakumovka River of the same grant was:

Scaly-sided Merganser nesting in AN on Avvakumovka River	3-4 nests in artificial nest sites	4 nests in 2013 and later
--	------------------------------------	---------------------------

In 2015 there were six nests in AN on Avvakumovka R.

The work over the Completion Grant will be continued in October 2015 – January 2016.