

Project Update: June 2011

Date	Activity
18.04-22.04	Dushanbe, working with collections in Zoology and Parasitology Institute, Dushanbe; a visit to Varzob valley.
23.04-25.04	"Palvan-Tugay" [N 37°21' E 068°27'], we began to study bird community of riverside forests at the Vakhsh river, at the North part of "Tigrovaya Balka" reserve, and visited nearby deserts but the director of the reserve asked us to leave the protected territory because we failed to get a permission for our works (mainly due to a conflict between Tajik Academy of Sciences and Tajik Ministry of Natural Resources).
26.04-28.05	Shakh sands, studying bird and reptile community in bushes, forests and semi deserts at plains and hills near Kafirnighan and Amu-Darja rivers [N 37°03' E 068°12']. We also studied breeding biology and social organisation of <i>Hipolais (Iduna) rama</i> - a typical breeding bird of plain "tugay" thickets, and social behaviour of <i>Phrynocephalus sogdianus</i> - a lizard endemic for sands of South Tajikistan and nearby parts of Afghanistan and Uzbekistan. We collected blood and tissue samples for DNA analysis from several species of birds, reptiles and amphibians, recordings of songs of several bird species. With help of our Tajik colleagues we collected data about mammal community of Shakh sands and also collected some pelaeozoological material - bones from a hole where little owls (<i>Athene noctua</i>) were breeding for many decades.
29.05-31.05	Searching for remains of psammophyle reptile fauna in Kabodian, Shakhrituz and Jilikul regions.
1.06-7.06	Dushanbe, working with collections in Zoology and Parasitology Institute, Dushanbe; a visit to Varzob valley.
8.06	Dushanbe-Khorog
9.06	Khorog, visit to Pamir Biological Institute and Botanical garden.
10.06	Khorog-Zumudg
11.06-11.07	Zumudg village, Ishkashim region, Gorny Badakhshan [N 36°55' E 072°11'], studying bird communities at willow and sea buckthorn thickets at Panj valley. We studied breeding biology and social behaviour of little-known bird species: <i>Acrocephalus orinus</i> and <i>Phylloscopus sindianus</i> . We got blood samples for DNA-analysis and recordings of bird songs. Information about mammals, reptiles and amphibians of Panj valley was also collected.
12.07-15.07	Zumudg-Dushanbe and staying at Dushanbe.

Work in Moscow: Eu. Solovyeva and V. Samotskaya successfully began analysis of DNA from collected samples of *Phrynocephalus sogdianus* and *Acrocephalus orinus*. We found that populations of *P. sogdianus* from Shakh sands are more close to the quite common and widely-distributed species *P. interscapularis*, that it was thought previously. DNA analysis

proved that reed-warblers we found breeding at Panj river are really *Acrocephalus orinus* and not closely related *Acrocephalus dumetorum*.

Main results: actual information about bird and reptile communities of plains and mountains of South Tajikistan. We found that the level of the destruction of plain "tugay" forests and sand deserts is high. The major threats for "tugay" forests and thickets are grazing and selective logging. Sand deserts are destroyed at large areas, only small remainders of psammophyle ecosystems can be found now at the South of Tajikistan.

We found that despite the small area of Shakh sands this place is important for wildlife conservation, it is inhabited by more than 20 species of reptiles, including such locally threatened animals as *Naja oxiana*, *Boiga trigonatum*, *Echis carinatus*, *Teratoscincus scincus*, *Phrynocephalus sogdianus*, *Varanus griseus*, etc. We studied the social organization of *Hippolais (Iduna) rama* as an example of a bird that inhabits thickets at temporary water bodies. This species demonstrates the phenomenon of "reduced territoriality" when birds do not hold individual territories or guard small areas. It allows birds to breed in conditions when the area of suitable habitats change from year to year and can be very restricted. Another example of such bird species - *Acrocephalus stentoreus*, which settlement was also described in May 2011.

In Badakhshan thickets in river valleys are in quite good condition. This ecosystem is protected now by forestry guards. We found that globally threatened species *Acrocephalus orinus* is quite common there. We found 15 nests of *A. orinus* at Panj river (one nest was also found by A. Abdunazarov at Gunt river; in the collection of Pavlovsky Zoology and Parasitology Institute (Dushanbe) we found materials that prove breeding of *A. orinus* at Vanj river). We collected first information of breeding biology and social organisation of *A. orinus*, took blood samples and made song recordings. We also described nests of *Phylloscopus sindianus* that were not previously known from Central Asia, collected information about biology and behaviour of this species. We found first breeding pair of *Sturnus pagodarum* for Tajikistan (and for the former Soviet Union).

Publications (in preparation):

- Summer bird community of Kondara valley, Gissar range (by Kvartalnov P.V., Opaev A.S., Samotskaya V.V., Garibmamadov G.D.)
- Status, vocalisation and morphometry of Blyth's reed warbler at Central Asia (by Ivanitsky V.V., Kvartalnov P.V., Marova I.M., Samotskaya V.V. and Bannikova A.A.)
- reeding of Large-billed reed-warbler (by Kvartalnov P.V., Abdunazarov A.G., Samotskaya V.V.; popular article in Russian, with colour photos)

Publications (in plans):

- Reptiles and amphibians of Shakh sands, Kabodian region, Tajikistan (by Solovyeva E.N., Kvartalnov P.V., Pankratov V.V.)

- Status of *Phrynocephalus sogdianus* in South-West Tajikistan (by Solovyeva E.M., Poyarkov N.A., Bannikova A.A.)
- Breeding of Large-billed reed-warbler in Tajikistan (by Kvartalnov P.V., Abdunazarov A.G., Samotskaya V.V., Poznyakova Ju.M.; short article in "Doklady Biological Sciences")
- Breeding of Large-billed reed-warbler in Tajikistan (by Kvartalnov P.V., Abdunazarov A.G., Samotskaya V.V., Poznyakova Ju.M.; article in an international ornithological journal)
- Critical review of Blyth's reed-warbler breeding records in Central Asia (by Kvartalnov P.V.)
- Breeding of Mountain Chiffchaff (*Phylloscopus sindianus*) in Tajikistan (by Kvartalnov P.V. and Il'ina I.Yu.)
- First breeding record of Hill Myna (*Sturnus pagodarum*) for Tajikistan (by Kvartalnov P.V. and Abdunazarov A.G.)
- Ornithological and zoological collection of Pavlovsky Zoology and Parasitology Institute, Dushanbe (by Kvartalnov P.V. and Garibmamadov G.D.)

Our command:

Russian: Pavel Kvartalnov (breeding biology and social organization of Passerine birds, terrestrial vertebrates fauna; in Tajikistan from 18.04 to 15.07.2011), Eugenia Solovyeva (fauna of reptiles and amphibians, social organization of *Phrynocephalus sogdianus*, genetic diversity of lizards; in Tajikistan from 18.04 to 5.07.2011), Alexey Opaev (bird fauna, in Tajikistan from 18.04 to 6.05.2011), Vladimir Pankratov (reptiles and amphibians fauna, in Tajikistan from 18.04 to 6.05.2011), Veronica Samotskaya (collecting blood samples and acoustic recordings of passerine birds, investigation of genetic diversity of birds; in Tajikistan from 01.06 to 06.07.2011), Irina Ilyina (social organization, collecting blood samples and acoustic recordings of passerine birds, in Tajikistan from 01.06 to 06.07.2011), Yuliya Poznyakova (social organization, collecting blood samples of passerine birds, in Tajikistan from 01.06 to 15.07.2011).

Tajik: Garibmamad Garibmamadov (bird fauna, worked for the project in April and May), Abdunazar Abdunazarov (bird fauna, worked for the project in June and July), Todjiddin Nadjmidinov and Rustam Muratov (reptile fauna, worked for the project in April), also five PhD students from Zoology and Parasitology Institute (birds and small mammals fauna of Vakhsh valley and Shakh sands).



Left: V Samotskaya with *A. orinus*. Right: *Acrocephalus orinus*.



Left: *Phylloscopus sindianus* nest. Right: *Sturnus pagodarum* and *Pastor roseus*.



Left: *Eryx tataricus* and *Eremias grammica*. Right: *Phrynocephalus sogdianus*.



Left: *Teratoscincus scincus*. Right: *Echis carinatus*.



Boiga trigonatum