

Project Update: July 2014

1. Introduce the concept of Prime Butterfly Areas (PBA) to the Ministry of Nature Protection (MNP), and the Administration of National Park 'Arevik' (NP).

- The concept of PBA is introduced at the workshop organized at AUA.
- For Ministry of Nature Protection a separate seminar is arranged at the second part of the project
- The workshop was attended by representatives of key development organizations such as WWF Armenia, UNDP, and German Organization for International Cooperation (GTZ). Representatives of Ministry of Nature Protection (MNP) could not attend the workshop for technical reason. Nevertheless, we have arranged implementation of the next seminar directly with the representatives of MNP. In addition students of YSU and AUA have also participated the seminar.
- The idea of creation of the Prime Butterfly Area (PBA) network was welcomed by participants and the approach related to the cycle of works, such as inventory of fauna, zoning of the areas of National Park, designing of routes, development of informational materials for butterfly watching, and training of personnel of the National Park.

2. Identify the butterfly species diversity hotspots, and to compile their full description as PBAs in accordance to the guidance of Butterfly Conservation Europe (BCE).

- Seven potential Prime Butterfly Areas were identified, their descriptions are complete
- In result of our work we have inventoried and analyzed over 15 areas in Meghri district. Out of them we have selected 7 candidates to PBA. We have created a detailed description of PBA in accordance to the guidance of Butterfly Conservation Europe (BCE), which was discussed with M. Warren, C. van Swaay, M. Wiemers, R. Verovnik, and other members of BCE. After finalizing of the format of PBA, we have described all the seven candidates to PBA.

3. Ensure recognition of the areas as PBAs at the levels of BCE, MNP of Armenia, and the Administration of NP.

- For the proposed sites we have received the commencement of NP Arevik, and recognition of the sites by BCE.
- In the coming period we plan to obtain recognition of the sites by the Ministry of Nature Protection
- The selected candidates have been presented to Butterfly Conservation Europe, where they have been discussed and approved as PBA. We have conducted a seminar with National Park Arevik as well, and have received their commencement to take the sites into account when start zoning of the National Park (planned for 2015).

4. Identify threats to butterfly species, to specify their habitats and provide details of their distribution and abundance.

- The task is in progress: we have complete initial identification of the threats but will continue those throughout the field season.

- We have analyzed over 10,000 records of the butterflies of Meghri region. In addition we have collected about 400 new records. For 60% of the species we have calculated population trends. Among those about 20 species demonstrate population declining trend, and for them we have started analysis of the habitat conditions and threats. The analysis is in progress and the conclusions will be made by the end of the project.
5. Detail the habitat requirements of the host-plant species for threatened butterfly species.
 - We have detailed the habitat requirements for 3 threatened species (RDB AM). For the rest of 7 species the task is in progress.
 - Out of the 20 species showing population declining trend, we have selected eight species that have shown population decline of over 15% during the last 10 years in Meghri region. For those species, such as *Erynis marloyi*, *Pontia chloridice*, *Proterebia afra*, *Tomares romanovi*, *Chilades trochilus*, and others), we have described habitat requirements for their host plants and human influence. The analysis of those characteristics allows selection of the most vulnerable species of host plants such as *Stachys recta*, *Malcolmia africana*, *Ferula karategina*, *Poa annua*, and *Astragalus finitimus*.
 6. Where necessary, plant the critical host-plants at butterfly diversity hotspots in order to strengthen the native but damaged plant populations.
 - The task is planned at second phase of the grant
 7. Assess the feasibility of reintroducing some butterfly populations at butterfly diversity hotspots / PBAs.
 - The task is in progress. Among four potential candidates for reintroduction we have assessed feasibility for two species. The rest are planned during the coming period.
 - According to our observations populations of two of the assessed species: *Agrodiaetus damonides* and *Testor romanovi* might require some strengthening of their populations. Our preliminary hypothesis is that might be meaningful only after strengthening of the protection of their distribution sites. However, the final conclusion will be made by the end of the project.
 8. In collaboration with NP and the local enthusiasts, define the measures on protection of the identified butterfly diversity hotspots / PBAs.
 - The task is in progress. We have identified the threats, and have a preliminary understanding of the possible solutions, but have not yet discussed protection measures with administration of the Park and local people.
 - So far we have identified fourteen types of the threats (IUCN 2014) in Meghri region of Armenia. Among those, five are having a negative impact on 38-83% of butterfly fauna of local areas. Those belong to categories of mining and quarrying, and livestock farming and ranching. There is some influence of use of pesticides in the orchards.
 9. Develop the knowledge and skills of key NP personnel and active members of local communities by providing training in butterfly identification, monitoring methods, and interpretation of results.

- The task is in progress. Trainings on identification and monitoring are complete. The trainings on interpretation of the results are planned on the second phase of the grant.
- According to our plan we have completed eight trainings on identification of 40 species of butterflies and three sessions on their count at the route. The feedback from the personnel of the National Park shows that they would like to have more field classes on the routes. Also the National Park's personnel expressed an interest in trainings for tour guiding, and we have conducted three additional trainings in tour guiding on the routes showing principles of guiding butterfly watching tours.

10. Designate butterfly watching trails and to provide their full description, including information on other conspicuous species: birds, dragonflies, orchids, etc.

- Preliminary designation of six trails is complete. By the end of summer we propose compilation of description of those trails.
- We have identified six trails that allow observation of over 90% of the butterfly fauna of the region. The format of trail description is proposed to include: start/end points, length, steepness, time of walk, butterfly species of various seasons, and other objects of wildlife tourism (birds, dragonflies & damselflies, and flowers). We plan to design and to print the trail guide and to provide e-version and hard copies to National Park Arevik.

11. Create a website of the project aimed at providing information on PBAs and butterfly watching trails. The website will also promote the NP 'Arevik' as a destination for ecotourism.

- The task is in progress. We have finished outline and the part of content. Technical development is planned for the second phase of the project.
- Preliminary outline of the site is finalized. The content related to area description is complete.
- In the coming period the site will become technically developed and filled out with the rest of content (description of routes).

12. Advertise the project's website through global and local environmental and social networks.

- The task is planned at second phase of the grant

So far there are two unforeseen difficulties that we faced:

1. Representatives of Ministry of Nature Protection did not attend the workshop dedicated on presentation of PBA concept. As a solution we have negotiated additional seminar for the Ministry to be implemented in the next phase of the project.
2. National Park Arevik becomes part of Biosphere reserve, and is managed separately. To be on a safe side we have begun developing of good relationship with the new Director of the Biosphere reserve, step by step explaining the benefits of designation of PBAs and developing of butterfly watching in the area.

