Summary of research and results from WP1 Social Science of Participatory Monitoring

National governments currently face unprecedented pressures to produce regular and plentiful amounts of information about the state of the natural environment in their countries. EU member states are required to produce more data on biodiversity than is possible for scientists to generate unaided. Due to these pressures there is increased reliance on assistance from ordinary citizens, volunteers, whose efforts are mediated through NGOs and other nature-based associations.

Between 2004 and 2007, volunteer biodiversity monitoring in Europe was studied as part of the Sixth Framework project EuMon ('EU-wide monitoring methods and systems of surveillance for species and habitats of Community interest'). Within the study, organisations that carried out voluntary biodiversity monitoring were referred to as Participatory Monitoring Networks (PMNs) – a term that captures both the structure of the organisations, and the way in which biological data circulates within and between them, as well as to official bodies at the local, national and regional levels.

Findigns from the research highlight the many important benefits to be gained, for individuals and societies alike, through the promotion of environmental volunteering.

- PMNs strengthen civil society through fostering the values of stewardship and participation.
- PMNs promote physical health through outdoor pursuits.
- PMNS contribute to the spread of environmental education and awareness.
- PMNs encourage people to become involved in the conservation of biodiversity.

Phase 1 Research

Phase 1 of the study set out to track the whereabouts of PMNs in Europe. The results were collated to form the beginning of a comprehensive, interactive European database on PMNs (http://eumon.ckff.si/).

By December 2007, organisations from 28 European countries responded to the electronic survey. Of the 312 organisations that replied, 257 used volunteers. The vast majority of countries (82 %) provided information on 10 or fewer organisations. Of the remaining 5 countries, the UK provided information on 85 PMNs, Poland 27, Germany 17, Netherlands 11 and Romania 10 PMNs.

The figures suggest that the database coverage for many European countries remains limited. Increasing awareness of the EuMon database and further dissemination of the project results, however, will likely encourage more organisations to participate in the future.

While many of the responding PMNs reported monitoring various aspects of biodiversity, some concentrate on single taxa. According to the results of the survey (Figure 1), the most commonly monitored aspect of biodiversity was birds (22%), followed by plants (18%), mammals (18%), and insects (17%). Fewer reported monitoring amphibians (13%), fish (10%) and reptiles (2%).

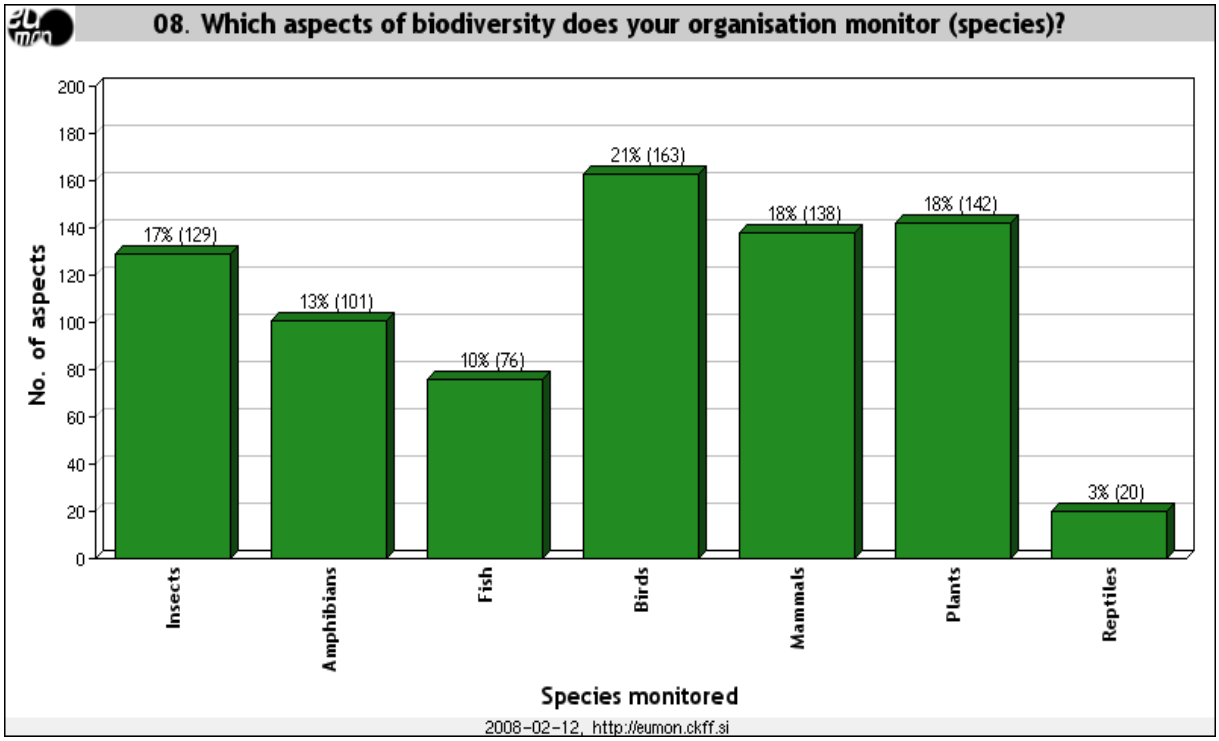

Figure 1: Distribution of species monitoring

Concerning habitats (Figure 2), the most widely monitored were forests (17%), scrubs and grasslands (15%) and freshwater habitats (13%). The least common categories included inland rocks, screes and sands (6%), brackish waters (3%) and landscape (0%).

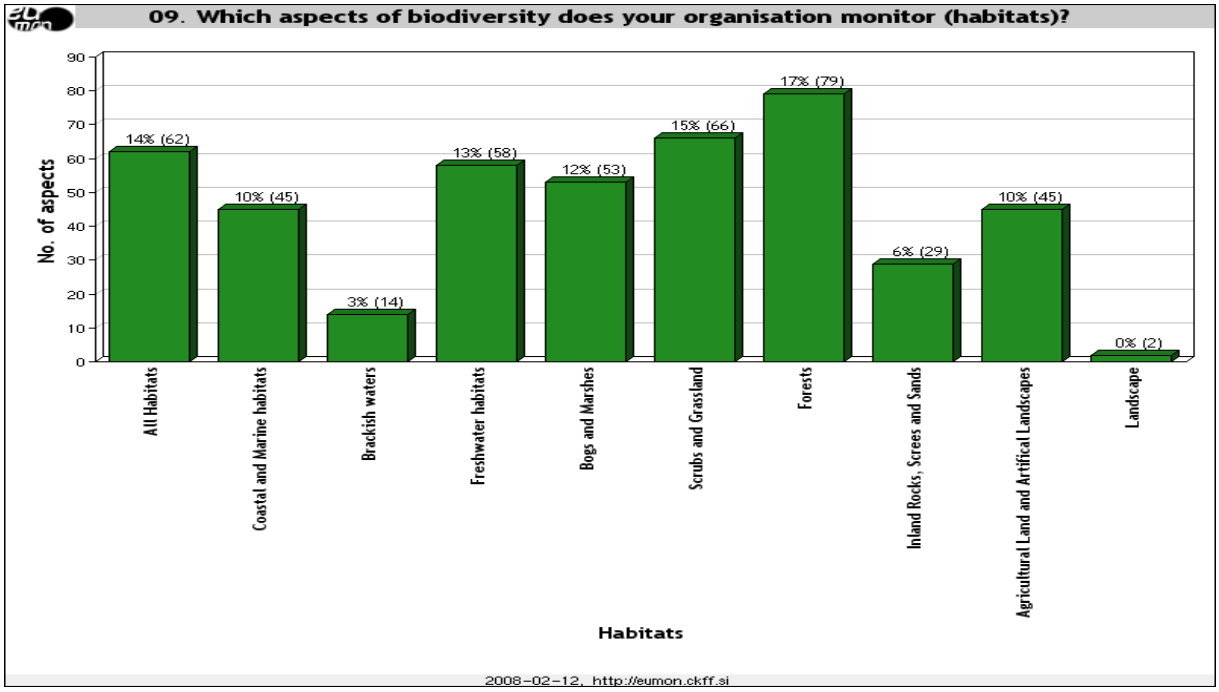

Figure 2: Distribution of habitat monitoring

60% of the surveyed organisations claimed to have insufficient volunteers to assist with their biodiversity monitoring.

Phase 2 Research

Phase 2 of the project involved qualitative research into nine PMNs, in six different countries – Lithuania, Poland, Denmark, Italy, Slovenia and the UK. The organisations studied at this stage were identified on the basis of survey responses during Phase 1. Four of these were studied intensively, through in-depth ethnographic case studies. These were ornithological organisations, as we reasoned that a common focus would screen out additional variables and facilitate cross-cultural comparisons. The remaining five organisations were also studied using qualitative methods but less intensively, using rapid appraisal.

For the purposes of the project, we placed each of the studied organisations in one of four categories which typify the range of PMNs to be found across Europe:

1. *Participatory Environmental Tourism (PERT):* Volunteers contribute financially in order to participate in research and monitoring.
2. *Virtual Network Organisations:* Multiple, geographically dispersed parties organise through electronic communication in order to achieve objectives, e.g. recording field data.

3. *National Non-Governmental Organisations:* Independent voluntary associations operating within a nation-state for the purpose of environmental monitoring
4. *Local Associations*: Autonomous, grass-root, volunteer-run organisations operating on a non-profit basis.

PMN membership does not always correlate with the numbers of individuals who act as volunteers at any given time. Small or medium organisations with intensely active members can be as effective as large organisations with a significant proportion of sleeping members. Nevertheless, sleeping members in large organisations can be activated temporarily and highly effectively, such as in the large-scale annual surveys conducted by the Royal Society for the Protection of Birds in the UK.

One important message emerging from the EuMon research is the difficulty of devising policies and activities that create and nurture PMNs while also allowing for the great differences between them. The very variation in PMNs is a factor in their success. The recommendation of WP1 is that the EU should work through member states, which in turn should work through local governments to support, expand and connect PMNs at all spatial and administrative levels. Voluntarism thrives in EU member states with a relatively undisturbed tradition of democratic political institutions, where voluntary associations have long formed a significant portion of civil society. Voluntarism also demands that people have the spare time and material resources to engage in unpaid activities. A country, or region, with a long tradition of amateur naturalist clubs from its urban populations, is better placed to develop PMNs.

The EuMon study revealed detectable common motivations relevant for recruiting and retaining active members across PMNs of all types. Overall, volunteers for biodiversity monitoring seem to be motivated by a synthesis of emotional, cognitive and social factors. People who volunteer for PMNs are passionate about nature. This love of nature translates into a strong desire to learn more, which further translates into an urge for fellowship with like minded people, especially knowledgeable people willing to act as mentors. The newcomer subsequently gains expertise sufficient to take their turn as mentor. This integrated chain of forces shared by individual members binds them to one another and strengthens the institutional framework of a PMN, enabling it to reproduce over time and across generations. With the possible exception of pure virtual networks, all attempts to develop PMNs require an understanding of and commitment to maintaining these social processes.

Research findings also stress the significance of connections between volunteer monitoring and conservation. Volunteers feel a sense of personal achievement if the data they collect contributes to scientific conservation. It is vitally important to volunteers that they be kept informed about the use to which their data is put, and that their personal contribution be acknowledged at all stages.

Conclusions

At the organisational level, PMNs benefit greatly from measures and conditions that enable networking, collaboration and the flow or pooling of resources, expertise and personnel – particularly, we have in mind here the flow of expertise from more established PMNs in Western Europe to the emergent and developing PMNs in former Eastern bloc countries. In terms of strengthening volunteer biodiversity monitoring as a sector, enabling such transfer and networking should be one of the key vector of intervention for national and supranational organs.

Our research also suggests that one of the more significant challenges facing PMNs across Europe lies with increasing professionalization. Tensions between paid and unpaid staff, amateurs and professionals, scientists and lay members can impair monitoring activities, disrupt organisational structures and jeopardize the long-term viability of entire organisations. Professionalization is, in most cases, a necessary and unavoidable process, but appropriate management of relations between volunteers must be ensured – for example, by means of management courses and training workshops, or schemes for volunteer management certification at the European level.

Further recommendations also emerged from a workshop held at the end of the project. These include:

- Involvement in nature conservation is an aspect of citizenship. Connections should be made between policies and actions related to the expansion and maintenance of civil society and those related to nature conservation

- A platform should be created at European level for individuals and groups involved in monitoring to interact. This would permit organisations to share resources, training materials and new developments while individual volunteers could be enabled to find schemes in which to participate. The platform could take the form of a website but also include conferences and meetings at European and national levels. The platform could play a leading role in the emerging culture of volunteering for nature in Europe.