Journal of King Saud University - Science (2013) 25, 179-180



## King Saud University Journal of King Saud University – Science

www.ksu.edu.sa www.sciencedirect.com



### LETTER TO THE EDITOR

# Need of concerted efforts for conservation of biological diversity across the region

Dear Editor,

I have been reading with interest the scientific facts and figures being revealed through your esteemed journal. This is marvelous service and contribution to science.

While feeling the positive role that your journal does perform in promoting science in the region, I suggest that it shall be equally useful if the issues of biodiversity in the region and need for its conservation are also being highlighted by this journal.

There is no doubt, or secret about the role of biodiversity in sustaining quality life (UNEP CBD, 2002, 2012); however, the efforts that required for it to be known to the policy makers in the region (PERSGA, 2002; Chape et al., 2008; ECO, 2004) have not been enough. As per my personal observations through 4 decades, almost 60% of the natural habitats are depleted in Pakistan; other countries of the region being no exception (Ashrafzadeh et al., 2011; NCWCD, 2005). With loss of natural habitats, the precious biodiversity is also gone (Irshad et al., 2008). Rather dangerous are the bad practices that we see in the form of unsustainable use of biological resources and other anthropogenic factors including unsustainable agriculture and indiscriminate use of pesticides. Many like me are witness to the plight of many species and populations of precious predators like dragon flies (Roberts, 2012) and efficient pollinators like butterflies just over the last few decades (Dicks et al., 2012; Ghazoul, 2005). For example, it is established that a mature dragon fly may eat as many as 100 mosquitoes in a day (Fischer, 2008). Had we good populations of dragon flies, there would have been no fear or problems of malaria or dengue in the region. But being sensitive to

1018-3647  $\odot$  2013 King Saud University. Production and hosting by Elsevier B.V. All rights reserved.

Peer review under responsibility of King Saud University. http://dx.doi.org/10.1016/j.jksus.2012.12.006



Production and hosting by Elsevier

pesticide fumes, they have been killed, and being killed, reducing their good populations of the past to just occasional sightings. Since dragon flies cannot breed in polluted waters, their natural propagation has further been hampered by the pollution that we generate and dump in wetland habitats ignoring the ecosystem services these habitats offer (Maltby and Acreman, 2011). Butterflies and bees are equally sensitive to pesticides and they have been affected too. According to rough estimates, almost 40% of the crops are being pollinated by such species. The future of this service could be well visualized (Pena, 2002).

Large carnivores and ungulates face similar problems across the region (Irshad et al., 2008; Toureng et al., 2009). Snow leopard now stays on the list of endangered species and so are many more carnivores and even apparently small and insignificant species that are important to keep the natural ecosystems healthy enough for it to provide its goods and services to the human being (Ashrafzadeh et al., 2011; Pena, 2002). What is rather dreadful is the fact that we are not left with many ecosystems that could be termed as healthy. With sick ecosystems around us, how do we lead a healthy life? Some of the ungulates in Pakistan are being offered for trophy hunting against a value worth 80,000 USD each. Out of this, 80% of the revenue goes to the community who protect these animals (Shackleton, 2001). However, there are still loopholes in the system to make this revenue rather sustainable and thus contribute to poverty alleviation in the mountains and remote areas (Michel, 2008). Other countries of the region may like to start it but if the wild ungulates are not being protected and lost, how may we think of their sustainable uses. Same is the case with several birds and reptilians.

Even if some countries are wise enough to protect land and water—the two basic natural resources, and the biodiversity that these support, there are others in the neighborhood that add to their problems. Though some coordinated efforts are under way (PERSGA, 2002, 2004; ECO, 2004) isolated efforts are thus of no great benefits. Policy makers, scientists and managers from across the world gather to measure the progress made on conservation and adopt further measures during the conference of parties to the Convention on Biological Diversity (CBD) at its 11th meeting. A general need for enhanced cooperation among different institutions as well as

180 Letter to the Editor

countries together with a need of further research in almost all sectors of biological conservation was realized (UNEP CBD, 2012). Though a fact, this is not being depicted the way it should have been, and accordingly, we do not see significant efforts for trans-boundary collaboration among the neighboring countries due to a variety of reasons (Rosen et al., 2011).

With the above in view and in the hope that greater interests shall be generated in conservation for the benefit of millions in the region, I suggest that biodiversity is also included in the journal.

#### References

- Ashrafzadeh, M.R., Batvandi, Z., Karimi, H., Soroushnia, R., 2011. Importance of Ghale Shadab prohibited hunting area in Khuzestan Province from stakeholders point-of-view. Journal of Environmental Studies 37, 19–21.
- Chape, S., Spalding, M., Jenkins, M.D., 2008. The World's Protected Areas UNEP World' Conservation Monitoring Center. University of California Press, Berkeley, USA, p. 360.
- Dicks, L.V., Abrahams, A., Atkinson, J., Biesmeijer, J., Bourn, N., Brown, C., Brown, M.J., Carvell, C., Connolly, C., Cresswell, J.E., Croft, P., De Darvill, B., Zylva, P., Effingham, P., Fountain, M., Goggin, A., Harding, D., Harding, T., Hartfield, C., Heard, M.S., Heathcote, R., Heaver, D., Holland, J., Howe, M., Hughes, B., Huxley, T., Kunin, W.E., Little, J., Mason, C., Memmott, J., Osborne, J., Pankhurst, T., Paxton, R.J., Pocock, M.J., Potts, S.G., Power, E.F., Raine, N.E., Ranelagh, E., Roberts, S., Saunders, R., Smith, K., Smith, R.M., Sutton, P., Tilley, L.A., Tinsley, A., Tonhasca, A., Vanbergen, A.J., Webster, S., Wilson, A., Sutherland, W.J., 2012. Identifying key knowledge needs for evidence-based conservation of wild insect pollinators: a collaborative cross-sectoral exercise. Insect Conservation and Diversity. http://dx.doi.org/10.1111/j.1752-4598.2012.00221.x.
- ECO 2004. ECO Plan of Action on Environment, ECO GoP Documents.
- Fischer S., 2008. Dragonflies: Mother Nature's mosquito control. The Houston Chronicle < http://www.chron.com/life/gardening/article/Dragonflies-Mother-Nature-s-mosquito-control-1590949.php > .
- Ghazoul, J., 2005. Buzziness as usual? Questioning the global pollination crisis. Trends in Ecology and Evolution 20, 367–373.
- Irshad, R., Nasir, S.M., Wani, B.A., 2008. Biodiversity of Pakistan: status trends and threats. Biodiversity Directorate, Ministry of Environment Government of Pakistan, Islamabad, p. 152.
- Maltbya, Edward., Acremanb, M.C., 2011. Ecosystem services of wetlands: pathfinder for a new paradigm. Hydrological Sciences

- Journal 56. http://dx.doi.org/10.1080/02626667.2011.631014, Special issue: ecosystem services of wetlands.
- Michel, S., 2008. Conservation and use of wild ungulates in Central Asia potentials and challenges. In: Baldus, R.D., Damm, G.R., Wollscheid, K., (Eds.), Best Practices in Sustainable Hunting: A Guide to the Best Practices from around the World, pp. 32–41.
- NCWCD, 2005. The National Strategy for Conservation of Biodiversity in the Kingdom of Saudi Arabia National Commission for Wildlife Conservation and Development, p. 94.
- Pena, J.E., 2002. Introduction. In: Pena, J.E., Sharp, J.L., Wysoki, M. (Eds.), Tropical Fruit Pests and Pollinators: Biology, Economic Importance Natural Enemies and Control. CABI Publishing, p. 400.
- PERSGA 2002 Strategic Action Programme for the Red Sea and Gulf of Aden: Status of the Living Marine Resources in the Red Sea and Gulf of Aden and Their Management, p. 134.
- PERSGA, 2004. PERSGA Integrated Strategy and Business Plan. The Regional Organisation for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA), p. 62.
- Roberts, D.M., 2012. Responses of three species of mosquito larvae to the presence of predatory dragonfly and damselfly larvae. Entomologia Experimentalis et Applicata 145, 23–29.
- Rosen, T., Jolivet, S., Young, T., 2011. Transboundary conservation: legal issues < http://www.tbpa.net/page.php?ndx = 48 > .
- Shackleton, D. M., 2001. A Review of Community-Based Trophy Hunting Programs in Pakistan IUCN/SSC Caprinae Specialist Group. The Mountain Areas Conservancy Project, Government of Pakistan, p. 59.
- Tourenq, C., Khassim, A., Sawaf, M., Shuriqi, M.K., Smart, E., Ziolkowski, M., Brook, M., Selwan, R., Perry, L., 2009. Characterisation of the Wadi Wurayah catchment basin, the first mountain protected area in the United Arab Emirates. International Journal of Ecology and Environmental Sciences Volume 35, 289–311.
- UNEP CBD, 2002. Biodiversity and Sustainable Development. News Supplement June 2002 Secretariat of the Convention on Biological Diversity Montreal, Canada, p. 16.
- UNEP CBD, 2012. UNEP CBD COP 11/35, p. 288.

### Ashiq Ahmad Khan

ICIMOD, Country Office, Pakistan, 139, Sector H-1, Phase II, Hayat Abad, Peshawar, Pakistan Tel.: +92 3215932456; fax: +92 915841594. E-mail addresses: ashiqahmad@gmail.com ashiqahmad@hotmail.com

Available online 9 January 2013