

# Editorial

## **Get your hands dirty and expose yourself!**

I offered to write an Editorial for my beloved Avocetta because I think necessary to share a current topic which I believe is close to the hearts of all readers.

Digital technology has been challenging the professional life of most scientists by offering wide opportunities but also showing critical issues. The ‘extinction of experience’ in the real world (i.e. the loss of direct observation, knowledge, and practice of nature) is one of them especially in urban contexts (Kareiva 2008, Soga & Gaston 2016), where people (and mainly young generations) are currently experiencing a ‘nature deficit syndrome’ (Driessnack 2009). This phenomenon is widespread also among scientists. Indeed, recently, there has been a growing tendency to replace the collection/recording and analysis of field data with digital processes and techniques (e.g., on big data). In this regard, Panuccio (2018) on these pages suggested how biologists should go back and put their boots on the ground.

The crisis of real experience parallels a progressive degradation of ecosystems, at every scale. Therefore, once the “boots are on the ground”, a further (operational) step is now all the more necessary: “get your hands dirty and expose yourself!”. I’ll try to explain.

Any ornithologist, during both research activities and even in pleasant surveys, encounters circumstances where threats and relative impacts on bird species and communities appear to be alarming. These events can be analytically studied by following the basic research approach, in order to trace the cause-effect relationships, thus quantifying

trends and patterns in species and threats. All this research is important because it allows us to suggest recommendations and solutions. However, once the data (i) are collected and analyzed, (ii) recommendations are provided, and (iii) a paper has been published, the further operational steps are often delegated to other subjects (e.g. Public Agencies), often not even identified. Therefore: it is assumed that someone else, not well defined, should adopt the suggested conservation recommendations and solutions. If this does not happen, as is often the case with threatened species and other critical issues, you get frustrated and look for culprits (defaulting Public Agencies, political dynamics, lack of funds, and so on).

The assignment of blame is a convenient (but not scientific!) behavior based on simplified ‘linear’ thinking (de Langhe et al. 2017). Instead, the conservation-based ornithologists must change the paradigm. They should think like problem-solver managers, not passive but proactive. They should not only write the papers, suggesting “recommendations for conservation” and delegating the solutions, but they should operationally think about how to change things. Time is running out, there is no more time to delegate! Data sampling and analysis are important but they are only a first step to start conservation actions (see <https://scientists4future.org>).

Certainly some conservation projects include complex actions that require skill, operators, materials, technology and economic resources, often beyond the capabilities of the single ornithologist. However, many solutions can be achieved with few resources, involving local motivated colleagues, and coordinating with experts. These operators may fail,

but then they will gradually adapt their context-declined actions, improving skill, until they achieve the expected results (Hall 2007). Even if results on conservation targets are not achieved, a personal result can be obtained: one does not delegate, one does not remain frustrated, one does not assign blame and one gains experience!

Many young ornithologists act as 'citizen managers' getting their hands dirty and exposing themselves, pursuing small operational projects: protecting plover's nests (Greenwood 2007); building nest boxes for threatened bird species (Kiss et al., 2017), improving awareness toward the younger generations (Davies et al. 2009); creating wet microhabitats and planting hedges (Ignatieva et al. 2008); building islets for waders (Magnani et al. 2001), cleaning coasts from anthropogenic litter, this last representing a debris trapping for birds and other animals (Battisti et al. 2019) and so on (e.g. Gruebler et al. 2012).

'Get your hands dirty and expose yourself' can also include carrying out actions that are not strictly hand-made operationally. For example, communicating problems via social media (looking for causes and solutions, not guilty!), alerting institutions (proposing themselves as active subjects), involving institutions and schools using a science-based conservation education approach (Jacobson et al. 2015), and promoting public events aimed to improve local awareness on species and threats.

Overcome prejudices! These actions are not simple naïve environmental and emotional-based processes: if developed with a project-based perspective, and the support of senior managers, they can be quantitatively monitored by verifying that the projects have been successful (Margoluis & Salafsky 1998, Salafsky et al. 2008). These actions can be published in management and conservation journals, increasing the arsenal of evidence (see <https://www.conservationevidence.com/>).

The operational conservationists who do project management monitor both the status of their target but also the pressures, impacts and actions to assess the effectiveness. Many small operational actions

can initiate a process of pervasive and fine-grained conservation. This can help the environment but above all it can initiate a paradigm shift from passive-delegating researchers to true operational science-based managers.

It is not important how complex a problem is and how difficult it is to solve it. The conservationist who does operational actions must be operative, even with small and symbolic actions. The important thing is to change your mindset, suggesting but also trying and taking risks. In this regard, there are thousands of trans-disciplinary concepts, approaches and techniques of project management available (Battisti et al. 2020).

Every ornithologist who reads these pages should remember that conservation is an action-oriented discipline (Meine et al. 2006): therefore, data sampling and analysis should be considered only as a first step. In this regard, *Avocetta* will increasingly welcome papers, short notes and Forums that tell stories of conservation, successes and failures.

Recall: while you are in front of digital screens the world moves. So once take your face off the video, put on your boots, get your hands dirty, and expose yourself!

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