The benefits of volunteer based research

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Volunteer based research projects have seen a huge increase in numbers over the past three decades. Moreover, it would seem that this growth is set to continue with new projects becoming available on a regular basis (Wearing 2001, Ellis 2003, Brown & Lehto 2005). These projects have been shown to recruit volunteers from a diverse range of backgrounds in terms of age, education, knowledge and experience (Foster-Smith & Evans, 2003). The majority of the projects are conservation-orientated, during which volunteers conduct baseline surveys and monitor conditions in both marine and terrestrial environments (Raines et al. 1991, Spencer Davies & Brown, 1992).

Such volunteering projects are often very attractive as it often takes the participants to exotic tropical locations for short periods and gives them a 'new' kind of experience (Wearing 2001, Ellis 2003). A wide range of benefits to volunteers was identified by Gilmour and Saunders (1995) and presented also by Brightsmith et al. (2008). These included broadening ones horizons through interaction with local communities, experiencing different environments and providing support in helping tackle environmental problems.

In addition to this, volunteers represent a substantial and on-going resource in a period where funding for basic conservation research is lacking (Pattengill-Semmens & Semmens 2003, Brightsmith et al 2008). The involvement of volunteers allows the creation of extensive ecological surveys and the collection of valuable data in relatively short periods of time (Foster-Smith & Evans 2003). Therefore this kind of tourism is highly beneficial to research and conversation organisations as it provides a labour force as well as a revenue stream (Brightsmith et al. 2008, Cuthill 2000).

Other advantages of such volunteer based research include an increase in the level of public awareness of ecological issues, the promotion of positive environmental attitudes and behaviour and the creation of survey designs which can be easily repeated over time allowing a consistent monitoring process (Darwall & Dulvy 1995, Cuthill 2000). Furthermore, volunteers can often provide a more significant contribution than simply data collection; they can bring valuable skills and knowledge as well as offer new insights and hypotheses that can lead to the improvement of current studies (Foster-Smith & Evans 2003).

While the output of volunteer projects seems largely positive, they are not without their criticism. There is scepticism among some quarters of the scientific community concerning the reliability of data collected by inexperienced volunteers (Darwell & Dulvy 1996, Saunders 2002, Foster-Smith & Evans 2003). However, studies have demonstrated that when sufficient training is given, and when appropriate tasks are chosen, volunteers are able to collect high quality data that is useful for scientific publications and resources management plans (Brightsmith et al. 2008).

Schmitt & Sullivan (1996) and Pattengill-Semmens & Semmens (2003) studied fish presence and abundance in the Florida Keys and several locations in tropical pacific waters. They reported that trained volunteer divers were able to generate representative species lists and relative abundance data. A similar conclusion was reached by Darwall & Dulvy (1995) in their study on Mafia Island, Tanzania. Here they demonstrated that suitable training enabled non-specialist volunteer researchers to reach a mean level of precision in the census of reef fish populations equivalent to that achieved by experienced scientists.

Finally, Foster-Smith & Evans (2003) made an assessment of the ability "of a group volunteers to collect valid data in a project aimed at mapping the distribution and abundance of common littoral organisms in Scotland". They showed that identification of specimens to family level by the volunteers could be performed reliably and was indeed valuable data.

In conclusion, the benefits of volunteer based research projects appear to outweigh possible drawbacks in situations where special attention is given to the training of volunteers and the tasks they are asked to fulfil. The positive contribution of this type of tourism to research and conservation can be significant. In light of the publications briefly reviewed here, and the huge number of volunteer programmes available, it would seem that participation in these schemes is to be encouraged, but that care should be taken in the selection of the project.

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