

The importance of sampling-site data when communicating the results of monitoring schemes: the case of www.sioc.cat

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Introduction

The communication of results is an essential part of any monitoring scheme and should be carried out in an appropriate way for all the many potential stake-holders (Vorisek & Gregory 2008) – national governments, members of the scientific community, participants in fieldwork, territorial managers and the general public. The number of possible communication tools is myriad and ranges from printed reports to websites, from talks on TV to press releases (see Vorisek & Gregory 2008 for a longer list of potential target groups and tools).

Release of results

Whatever the methods used or the group of people targeted, released results usually deal with general trends in species and indicators in a given country or region, which are precisely the main aims of most monitoring schemes. However, the release of results at sampling-site level (species' abundance and trends, site location, observer information, etc.) entails certain benefits and a number of drawbacks. The following are some of the positive aspects:

1. Publishing results indicates transparency and reveals the availability of the data: the information is public and everyone can thus see that sharing data is part of any collective project.
2. Publishing results gives a sense of cohesion to the network of volunteers that conduct field censuses independently of each other (all participants can see the results from other sampling sites, species lists, etc.).

3. Results are generally well received by participants who thus see that the fruits of their labours are not only part of a large-scale project and analyses (the most important result), but also important at the level of their own site.
4. Although monitoring projects usually have their own team of experts to filter data, publishing site-level data enables previously undetected errors to be detected by anyone consulting the data.
5. The coordination of fieldworkers can be facilitated by the communication of site-level results. For instance, new participants have easy access to expected species lists and abundances; furthermore, detailed maps can help new observers to localise the exact location of surveying sites. This may lead to considerable savings in terms of coordination costs.
6. When access to general results is easy, local results enable rough comparisons of trends and abundances to be made between specific sites and those of the whole country/region.
7. Site-level results may be very useful for territorial managers and planners working at local scale. Results can often not be directly used in planning and management; however, they can easily see that there is data available for their purposes.
8. Scientists are provided with a very interesting source of data for a number of local studies. For example, local data from monitoring projects may provide excellent control data for experimental work.

The following are some of the drawbacks to publishing site-level results or aspects that need to be carefully taken into account before releasing such results:

1. The publication of these results implies that we should decide what to do with data that have been considered an error and hence have not been included in the general trend analyses. We could either decide to publish all data, including these invalidated field observations, or reject them and show only the filtered data. The latter option is surely the most suitable in terms of data quality; however, potential problems may then arise with the observers who provided the data that was invalidated (if they have not been informed already).
2. Potential problems arising from the misuse of information. This is not a problem that only concerns site-level information. However, given its generally low reliability compared with general results, it is worth mentioning here. It is important to explain how the data was obtained and – if necessary – how it was analysed. Furthermore, legal warnings regarding data-use should be made clear to all users.
3. One of the most important aspects to be taken into account when releasing this kind of information is the sheer amount of data involved: the number of figures or tables to be published can be calculated

roughly by multiplying the number of general national trends for common birds by the number of sites in which each species has occurred. Consequently, internet is probably the only available means of publishing such a large quantity of data.

4. Maintenance costs. As mentioned in the previous point, the *site x species* matrix generates a huge number of figures. Although the automatisms included in software packages are extremely useful, the yearly costs of updating information must be taken into account. This could be especially relevant when volunteers are asked to provide supplementary information such as photos of sampling sites.

A specific website

In 2007 the Catalan Ornithological Institute launched a website specifically designed to communicate the results of its monitoring projects in Catalonia (Northeast Spain), both globally and at site level www.sioc.cat (Figure 1). The data from the Catalan Common Bird Survey provided in this website at local level are as follows: 1) participants' names; 2) a zoom to the line-transect location; 3) a photograph of the area; 4) the mean number of birds for both breeding and wintering seasons; and 5) species trends at the site, which correspond to the F1 values given by TRIM analyses (Pannekoek & van Strien 2001). It is worth commenting that the use of F1-imputed counts to estimate missing data on the basis of other points in the same time series and data from other sampling sites greatly contributes to the idea that site-level results are part of a process that goes beyond one particular observer recording at one particular site.

In conclusion, our experiences suggest that the provision of results of monitoring schemes at site level is a new and interesting communicative tool and if properly designed and financed the advantages of providing such information outweigh the disadvantages.





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Escull un dels projectes de seguiment i clica sobre les icones del mapa per obtenir informació sobre cada estació o itinerari


Projecte SYLVIA

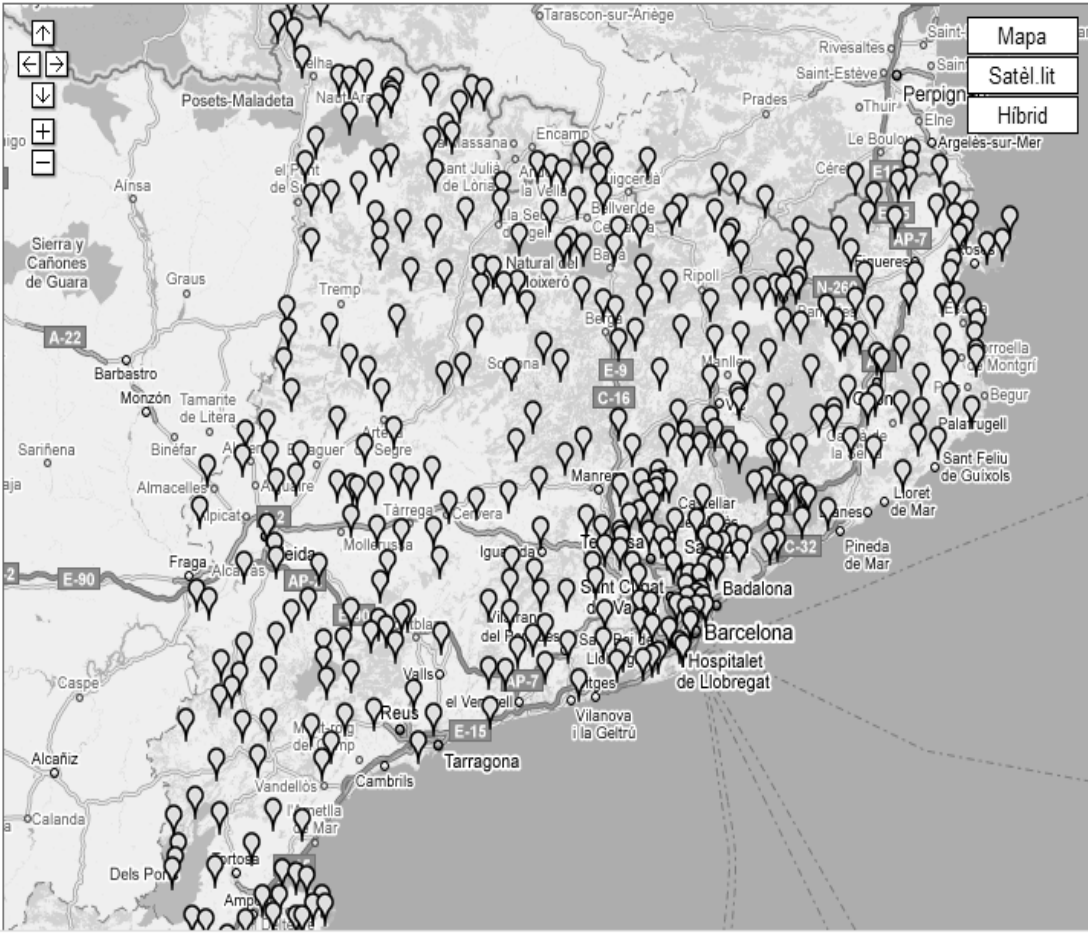

Migració de tardor


Migració de primavera


SOCC


PERNIS





Mapa

Satèl·lit

Híbrid

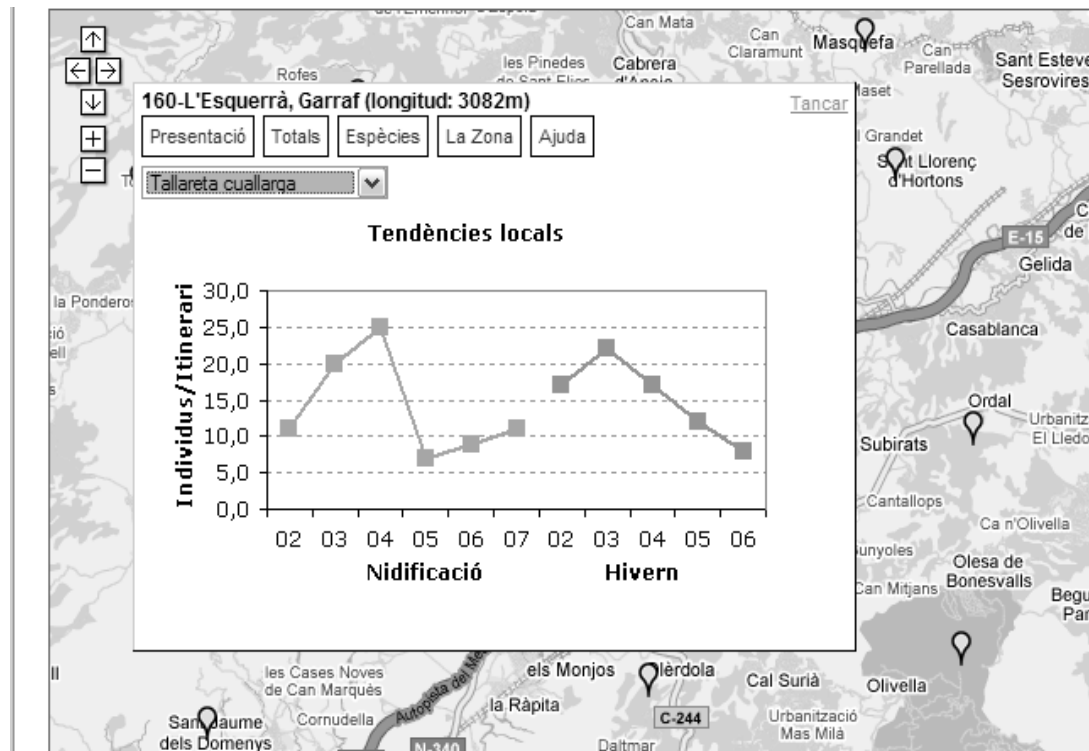


Fig. 1: The web www.sioc.cat is an internet tool that communicates the results of the monitoring schemes promoted by the Catalan Ornithological Institute. Site-level results can be seen by clicking on 'informació per localitat', at which a Google Map window opens providing access to data for several monitoring schemes (those corresponding to the Catalan Common Bird Survey are labelled 'SOCC'). Users can then zoom in and out with the Google Map window and select a given site to see its results (upper). One of the most interesting possibilities is the generation of graphics showing trends at a given site for both breeding and wintering populations. This example shows the population change in breeding ('nidificació') and wintering ('hivern') Dartford warbler *Sylvia undata* populations at a particular sampling site located in the coastal mountains (lower).

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References

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