Geophysical Research Abstracts
Vol. 15, EGU2013-3568, 2013
EGU General Assembly 2013

The revision of the Swiss Inventory of Geosites (2006-2012)

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Switzerland has a long history of geoconservation but it is only during the last two decades that a growing attention has been given to geoheritage protection and promotion. In order to disseminate knowledge of Swiss geoheritage and to encourage the Swiss Confederation and the cantons to protect this heritage accordingly, the Swiss Academy of Sciences (SCNAT) created a working group on Geotopes in 1993. The working group undertook the compilation of a list of geosites of national importance. This work was not a real inventory, based on a common methodology, but rather a list of proposals made by experts from various parts of the country, various fields (palaeontology, mineralogy, geomorphology, etc.), and various institutions (cantonal administrations, nature historical museums, universities, etc.). More than 800 proposals were received from which the working group retained 401 geosites.
This list suffered several problems. One of them was its heterogeneity both in terms of content (regional discrepancy, differences between the various fields of Earth sciences) and of form (some proposals were very well documented in spite of others which were limited to the name of the site without any details of perimeter and description). Moreover, there was no information in digital form.
As a result, a revision of the inventory was carried out in 2006 by the working group, with the financial support of the SCNAT and the Federal Office for the Environment (FOEN). The revision was both formal and digital. A relational database was created and hosted on the SCNAT server. It allowed project contributors to introduce information in the system by completing a form from their office. In parallel, all the geographical information – especially the perimeters – was managed within a Geographical Information System (GIS) in order to simplify use by the public administrations. At the end of the project, the list was published on the Geological data viewer (www.geologieviewer.ch) of the Federal Office of Topography (Swisstopo). Finally, a book, containing the list of Swiss geosites and a selection of the most emblematic sites, described in more detail, will be published in 2013.
In terms of content, the revision of the inventory needed a huge amount of homogenization work. A lot of data was added mainly because most of the geosites were poorly detailed in the 1999 inventory. Several sites were merged, others were abandoned because their national relevance was debatable. Moreover, a large survey was carried out to add new sites, especially for regions as well as fields of Earth sciences that were missing in the 1999 inventory. Also, some sites, which were not known in the 1990s, could be added. A good example is the Courtedoux geosite where numerous dinosaur tracks were discovered in 2000 during the construction of the A16 highway and that has gained international recognition today. The Glarner Hauptüberschiebung / Sardona Tektonic Arena, in the Cantons of Glarus, St. Gallen and Graubünden, is another good example. As a matter of fact, though the Glarus overthrust had already been recognized since the mid-19th century as one of the prominent examples of alpine tectonic history, it was curiously not proposed in the 1999 inventory. In the meantime, the site has been inscribed as a World Heritage Site by the UNESCO in 2008 and was added to the Swiss inventory of geosites.
An initial list of 248 geosites was published in 2008, while the final list (322 sites) was published in 2012. This inventory stimulated an interesting debate around the generic name that should be given to it. According to the FOEN, the terms “inventory” and “national importance” as used in 1999 (SCNAT,) – should be avoided today because such references could create a confusion with the official inventories carried out based on the Nature Protection Act. Finally, it was decided to call it the “Swiss Inventory of Geosites”. The next steps will be to distribute the inventory to Swiss cantonal administrations – in order to include its results in their land planning strategies – as well as to the managers of the new natural parks currently being created in Switzerland.