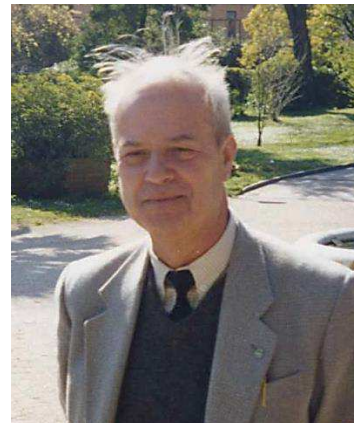


The European Vegetation Survey: a History

Early days 1991-1995

At the Symposium of the International Association for Vegetation Science held at Eger in Hungary in August 1991, a group gathered to discuss the possibility of producing *A Prodrromus of European Plant Associations*. Forty IAVS members from 14 countries agreed that it was a timely moment to embark on such a venture but considered that adequate funding and a full-time core staff were necessary. A first workshop was proposed for the following spring to discuss the possibilities further and thus the 'European Vegetation Survey' was born.

It was Sandro Pignatti, then IAVS President, who convened the workshop which was held on 13-14 March 1992 at the Orto Botanico in Rome. His paper 'Towards a Prodrome of Plant Communities' (Pignatti 1990) had already outlined the vision discussed at Eger and it set the parameters for those first discussions. The papers at the Workshop were relatively few and modest but the tone was enthusiastic and the commitment to a developing task was clear. The meeting was also distinctive in that it brought together pioneers of an earlier generation like Sandro himself, his wife Erika Pignatti-Wikus, Hartmut Dierschke, Jean-Marie Géhu, Georg Grabherr, Frank Klötzli, Jaroslav Moravec, Władysław Matuszkiewicz and Victor Westhoff, and newcomers like Laco Mucina, then working in Vienna, Joop Schaminée from The Netherlands and John Rodwell from the UK. These last three, together with Pignatti and Grabherr, quickly constituted a committee, with Mucina as Secretary, that gave a core organisational shape to what became a new Working Group of the IAVS.



The Orto Botanico was a startling location in the lovely spring weather of that first Workshop, particularly for those who came from the greyer climates of northern Europe and Russia. The impressive neighbourhood where we walked to and from past the Palazzo Corsini and Villa Farnesina, the idiosyncratic Centro Spiritualità where most of us were billeted, the attractions of the small restaurants nearby in Trastevere ... This appealing setting was to remain the annual location of the EVS Workshops for its first decade.

At the three subsequent annual spring meetings, increasing numbers of participants and countries were present, 54 people from 25 countries by 1995, including further luminaries like Eddy van der Maarel, Attila Borhidi, Salvador Rivas-Martínez and Franco Pedrotti as well as many young phytosociologists. There were papers and posters which provided the first Europe-wide exchange of information about the state of play of vegetation surveys in different countries, current thinking on particular classes of vegetation and state of art of analytical techniques and

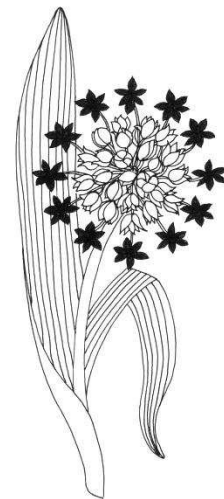


software. As an encouragement to the development of national vegetation surveys, the paper '*European Vegetation Survey: Current state of some national programmes*' (Mucina et al. 1993b)

aimed to show how such time-consuming and logistically intensive enterprises might be organised, detailing projects then coming to fruition in the UK (Rodwell 1991-2000), Austria (Mucina et al. 1993a) and The Netherlands (Schaminée et al. 1995-1999). Supportive letters were also provided by the EVS to encourage funding for emerging national surveys in various other countries, such as that of the Czech Republic (Moravec 1998-2003) and Slovakia (Valachovič et al. 1995, Jarolínek et al. 1997).

From the start, the EVS was concerned to encourage participation from the wider Europe and, in the early workshops, there were representatives from the east, including Russia, as well as from western Europe and the Mediterranean. From Scandinavia, too, where there had long been a rather different tradition of vegetation survey, representatives came in 1995 from Sweden, Denmark and Norway. A questionnaire to participants at this time aimed to assess the extent of phytosociological data and the state of vegetation survey across Europe, and the extent of computerisation and received responses from 18 countries (Rodwell 1995), providing the first broad indication of progress and capacity.

Particular pleas for help with database development came early from Albania and Russia and, in response to these, funding was obtained by John Rodwell from the UK Know-How programme and Darwin Initiative to develop a network that also involved the Czech Republic, Latvia and Slovakia. With the generous participation of Stephan Hennekens from The Netherlands, the foundation of a TURBOVEG network was established in these countries which subsequently spread right across Europe and beyond. In the paper '*European Vegetation Survey: update on progress*' (Rodwell et al. 1995), the development of shared software and a network for data exchange, as well as the encouragement of common data standards in the provision of phytosociological information on plant associations, were marked out as key commitments of the EVS. As a token of its unity and hopes, of the new spirit in phytosociology (Pignatti 1995), the EVS also adopted a logo, inspired by an idea of Anton Stortelder of The Netherlands and realised by John Rodwell, based on the illustration of *Allium neapolitanum* in Sandro Pignatti's *Flora d'Italia*.



Further achievements 1996-2001

For the next four years, 1996-1999, the EVS met in late March in Rome, with two or three days' of papers and posters and a local excursion on one day between. It was one of Sandro's mantras that the EVS was self-organising but it was clear from the start how much of the Workshop logistics, both indoor sessions in the Arancera of the Orto Botanico and the excursions, fell upon Andrea Savoia and her team of post-graduate students. The entertaining outings, with inimitable guidance from experts like Francesco Spada and Riccardo Guarino, took us to the coast, the grasslands and forests of local foothills and some of the extraordinary cultural heritage of the region, as well as allowing us a generous opportunity to savour the delights of the Italian lunch and, on our return, the inevitable Roman Sunday evening traffic.

These middle years also saw some shift in the structure of each of the EVS workshops. John Rodwell became Secretary and Odd Eilertsen and Jonas Lawesson joined the Organising Committee and, among participants from further afield, we welcomed Elgene Box from the USA, George Bredenkamp from South



Africa and Kazue Fujiwara from Japan. Regular workshop attenders, who provided stalwart support of the EVS aims at this time are shown in the images here. From the 6th Workshop in 1997, there was also an increasing focus on particular vegetation types each meeting - Beech Woodlands, Meadows, High-

mountain Vegetation - with space always for news of national vegetation surveys and demonstrations of new methods and software, such as COCKTAIL (Bruehlheide 2000) and JUICE (Tichý 2002). From the start, there had been opportunity to publish selections of Workshop papers in *Annali di Botanica* but 'European Vegetation Survey: Case Studies', broke new ground in demonstrating how a special issue (in this case of *Folia Geobotanica et Phytotaxonomica*, republished as a separate volume by Opulus Press, Mucina et al. 1997) might give a clearer expression to understanding particular vegetation types and ecological challenges in vegetation science.

Also, through these workshops of the late 1990s, the EVS developed closer relationships with the team producing the Vegetation Map of Europe under the direction of Udo Bohn at the Bundesamt für Naturschutz in Bonn. This map, eventually published as hard copy (Bohn et al. 2000-2003) and as an interactive CD-



ROM, was subsequently to form part of SynBioSys Europe, an information system that was shaping at this time in the minds of Joop Schaminée and Stephan Hennekens. Coordinated through Alterra in The Netherlands, the aim was for this to function as a network of distributed databases linked through a web-server, with layers for information on species, vegetation and landscape.

At the very first EVS Workshop in 1992, the gathered participants were asked how many of them had heard of CORINE. One hand went up, a fair indication at that time of the links between vegetation science and the developing frame of European environmental policy. However, the middle years of the EVS saw a more focused response to opportunities to participate in the revision of the CORINE Biotopes Classification and the attendance in the Workshops of François Boillot and Dominique Richard, and later Doug Evans, from the European Topic Centre (ETC) on Nature Conservation (later on Biological Diversity) in Paris, and policy-related representatives from EU countries such as John Hopkins from the UK, Axel Ssymank from Germany and Colman Ó'Criódaín from Ireland.



Using the '*Conspectus of Classes of European Vegetation*' produced by Mucina (1997) as a frame, the EVS resolved to develop a draft list of alliances as a comprehensive framework for a classification of European vegetation. Funding from the ETC under contract to the European Environment Agency stimulated the development of a crosswalk between this list of alliances and the developing EUNIS habitat classification (Rodwell *et al.* 1998). This was subsequently published as '*The Diversity of European Vegetation*' with funding from the Dutch National Reference Centre for Agriculture, Nature and Fisheries (Rodwell *et al.* 2002), providing the first ever high-level overview of vegetation of the Continent.

This aspect of the work of the EVS also found fascinating expression in these years through the participation in the workshops of Claire Waterton, a social scientist from the UK, who produced a fascinating analysis of the relationships between vegetation science and environmental policy subsequently published as '*From Field to Fantasy: Classifying Nature, Constructing Europe*' (Waterton 2002).

With the prospect of an overcrowded Rome to celebrate the Millenium, the 9th EVS Workshop was held in Erice in Sicily at the invitation of Francesco Raimondo, Director of the Palermo Botanic Garden, with the special topic of Dry Grasslands and an adventurous excursion afterwards to Etna and the Madonie Mountains. But we returned to our origins in 2001 for a 10th anniversary celebration that coincided with the 70th birthday of Sandro Pignatti, a meeting dedicated particularly to Saline Vegetation with a Festschrift of papers for Sandro, published through the invitation of its editor-in-chief Ulrich Deil, as a special issue of *Phytocoenologia* (Schaminée *et al.* 2003).

Different locations, new perspectives 2002-2013

From 2002, the EVS workshops saw us more often in different locations, first with an overnight mid-workshop excursion to Civitella National Park in the Appennines for



the 11th Workshop; then, with the workshop included within the IAVS Symposium held in Naples in 2003; and in 2004 when we went at the invitation of Panayotis Dimopoulos to Ioannina in Greece with a special topic of oak woodlands and a dedicated issue of *Botanika Chronika* (Dimopoulos et al. 2004). From thereon, EVS workshops alternated between Rome and other locations, firstly in Catania for the 15th Workshop in 2006, at the invitation of Emilia Poli-Marchese and Salvatore Brullo, where our topic was Vegetation in Agricultural Landscapes, but thereafter at places outside Italy.

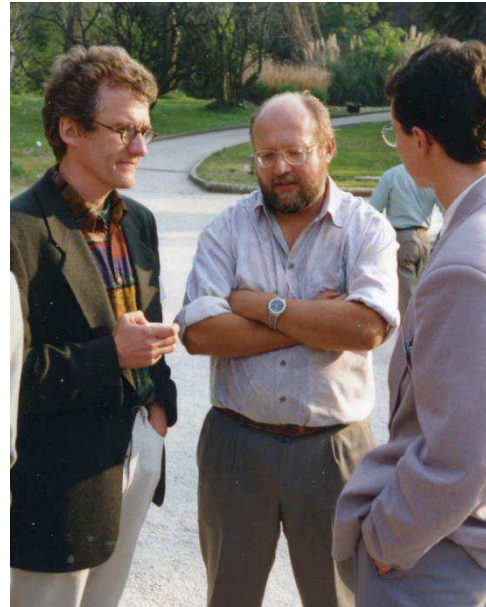
Milan Chytrý had by this time joined the EVS Organising Committee and it was the 17th Workshop hosted by him in Brno in 2008, which was to set the tone for EVS meetings since. It had the largest ever attendance of over 200 participants of 32 countries, many from eastern Europe, had a more applied focus on 'Using Vegetation Science to address Ecological Questions' and instituted the longer post-workshop excursion that became a feature of our meetings from then on. At this workshop too, we saw the first volume of the 'Vegetation of the Czech Republic' (Chytrý 2007), setting an impressive standard for the kind of national classifications which the EVS had always sought to encourage. Thereafter, in alternate years, highly successful workshops outside Italy were held in Pécs at the invitation of Éva Salamon-Albert (19th, 2010, Large-scale perspectives on Flora, Vegetation & Land-use, Flood-plain Vegetation) and Vienna, organised by Wolfgang Willner, jointly with the German Working Group on Vegetation Databases (21st, 2012, Vegetation Databases & Classification, Biogeographical Patterns, Global Change).

In Rome, the workshops were now organised by the EVS Italia group of Francesco Spada, Laura Casella and Emiliano Agrillo, the 18th in 2009 on Thermophilous Vegetation and the 20th in 2011, when we moved from the Arancera of the Orto Botanico to the more capacious venue of the Accademia dei Lincei in the grounds of the Villa Farnesina. This EVS anniversary meeting, also celebrating the Centenary of Phytosociology, welcomed the IAVS Circumboreal Vegetation Map Working Group with its contingent of North American participants, and took as one major theme Boreal Vegetation, but it also gave an opportunity to revisit the original aims of the EVS and focus for the future.

Software sessions had long been a feature of EVS meetings with Stephan Hennekens, Luboš Tichý from the Czech Republic, Julian Dring from the UK and Zoltán Botta-Dukát and Ferenc Horváth from Hungary demonstrating increasingly

sophisticated programs for data analysis and management and at some workshops running training courses which helped disseminate skills and spread the user network more widely. A new EVS review of phytosociological data revealed that there were over 4.3 million relevés across Europe, 1.8 million of which were in centralised country or regional databases (Schaminée et al. 2009). An EVS team under Milan Chytrý began work on a European Vegetation Archive (EVA), in which such relevés could be located in a centralised pan-European database and the notion of a standard list of plant species for vegetation databases was revived as EuroSL with Jürgen Dengler and Florian Jansen taking the lead.

Revision of the overview of alliances was led by Laco Mucina who assembled an expert team from many countries, the fruits of their long and hard labours now seeing the light of day in a comprehensive and inclusive hierarchical frame that includes both vascular-plant and cryptogam assemblages (Mucina et al., in press). A parameterised overview of the alliances in this schema has become accepted as a main future goal for the EVS, linked to the EUNIS habitats through a revised crosswalk (Schaminée et al. 2012). In collaboration of the SynBioSys team from Alterra, Borja Jiménez-Alfaro is now working on this as an EVS Fellow in Brno, giving new spirit to the aboriginal EVS idea, discussed at our first meeting, of a European *tabellarium*.



A parallel initiative of great significance here has been the Global Index of Vegetation-Plot Databases, initiated at the 9th International meeting on Vegetation Databases in Hamburg 2010 and led by Jürgen Dengler, Florian Jansen and Falko Glöckler (Dengler et al. 2011, 2012). The GIVD is a metadatabase of vegetation data worldwide in which 186 databases with over 2.8M plots were registered by April 2013 and through which researchers can locate information of interest and contact database hosts.

The 2012 Vienna workshop saw the EVS adopt a more formal shape as a Working Group of the IAVS with By-Laws and a Steering Committee elected by the membership - Erwin Bergmeier, Milan Chytrý, John Rodwell, Joop Schaminée and Wolfgang Willner, from among whom they chose Chytrý as the new Secretary and appointed Emiliano Agrillo as Membership Administrator. A website was launched in November 2012, a new version of our logo produced and we are all set for our 22nd workshop in Rome, organised by Roberto Venanzoni and Daniela Gigante in parallel with the Fédération Internationale de Phytosociologie, with special topics of Saline Vegetation and Red Data Lists, and an excursion to the Circeo National Park. Arrivederci Roma!

References

- Bohn, U., Neuhäusl, R., Gollub, G., Hettwer, C., Neuhäuslová, Z., Schlüter, H. & Weber, H. (eds.) (2000-2003). *Karte der natürlichen Vegetation Europas. Maßstab 1 : 2 500 000. Teil 1-3*. Landwirtschaftsverlag, Münster.
- Bruelheide, H. (2000). A new measure of fidelity and its application to defining species groups. *Journal of Vegetation Science*, 11, 167-178.
- Chytrý, M. (ed.) (2007). *Vegetace České republiky 1. Travinná a keřčková vegetace*. Academia, Praha.
- Dengler, J., Jansen, F., Glockler, F., Peet, R.K., De Cáceres, M., Chytrý, M., Ewald, J., Oldeland, J., Lopez-Gonzalez, G., Finckh, M., Mucina, L., Rodwell, J.S., Schaminée, J.H.J. & Spencer, N. (2011). The Global index of Vegetation-Plot Databases 1 (GIVD): a new resource for vegetation science. *Journal of Vegetation Science*, 22, 582-597.
- Dengler, J., Oldeland, J., Jansen, F., Chytrý, M., Ewald, J., Finckh, M., Glöckler, F., Lopez-Gonzalez, G., Peet, R.K. & Schaminée, J.H.J. (2012). Vegetation databases for the 21st century. *Biodiversity and Ecology*, 4, 1-447.
- Dimopoulos, P., Bergmeier, E., Chytrý, M., Rodwell, J. Schaminée, J. & Sýkora, K. (2004). European oak woodlands: past, present and future. *Botanika Chronika*, 18, 1-316.
- Jarolímek, I., Zaliberová, M., Mucina, L. & Mochnacký, S. (1997). *Rastlinné spoločenstvá Slovenska, 2. Synantropná vegetácia*. Veda, Bratislava.
- Moravec, J. (ed.) (1998-2003). *Přehled vegetace České republiky. Svazek 1-4*. Academia, Praha.
- Mucina, L. Conspectus of classes of European vegetation. *Folia Geobotanica et Phytotaxonomica*, 32, 117-172.
- Mucina, L., Grabherr, G. & Ellmauer, T. (eds.) (1993a). *Die Pflanzengesellschaften Österreichs. Teil I-III*. Gustav Fischer, Jena.
- Mucina, L., Rodwell, J.S., Schaminée, J.H.J. & Dierschke, H. (1993b). European Vegetation Survey: current state of some national programmes. *Journal of Vegetation Science*, 4, 429-439.
- Mucina, L., Pignatti, S., Rodwell, J.S., Schaminée, J.H.J. & Chytrý, M. (eds.) (1997). *European Vegetation Survey: case studies*. Opulus Press, Uppsala.
- Pignatti, S. (1990). Towards a prodrome of plant communities. *Journal of Vegetation Science*, 1, 425-426.
- Pignatti, S. (1995). A new spirit in phytosociology. *Annali di Botanica*, 53, 9-21.
- Rodwell, J.S. (ed.) (1991-2000). *British Plant Communities, Vols. 1-5*. Cambridge University Press, Cambridge.
- Rodwell, J.S. (1995). The European vegetation Survey questionnaire: an overview of phytosociological data, vegetation survey programmes and databases in Europe. *Annali di Botanica*, 53, 87-98.
- Rodwell, J.S., Pignatti, S., Mucina, L. & Schaminée, J.H.J. (1995). European Vegetation Survey: update on progress. *Journal of Vegetation Science*, 6, 759-762.
- Rodwell, J.S., Schaminée, J.H.J., Mucina, L., Pignatti, S., Dring, J. & Moss, D. (1998). *The scientific basis of the EUNIS Habitat Classification*. Report to the ETC-NC, Unit of Vegetation Science, Lancaster.
- Rodwell, J.S., Schaminée, J.H.J., Mucina, L., Pignatti, S., Dring, J. & Moss, D. (2002). *The Diversity of European Vegetation: an overview of phytosociological alliances and their relationships to EUNIS habitats*. EC-LNV, Wageningen.
- Schaminée, J.H.J. et al. (eds.) (1995-1999). *De vegetatie van Nederland*. Opulus Press, Uppsala.
- Schaminée, J.H.J., Rodwell, J. & Mucina, L. (2003). Plant communities in saline environments – a Festschrift for Sandro Pignatti. *Phytocoenologia*, 33, 163-559.

- Schaminée, J.H.J., Hennekens, S.M., Chytrý, M. & Rodwell, J.S. (2009). Vegetation-plot data and databases in Europe: an overview. *Preslia*, 81, 173-185.
- Schaminée, J.H.J., Chytrý, M., Hennekens, S., Mucina, L., Rodwell, J.S. & Tichý, L. (2012). *Development of vegetation syntaxa crosswalks to EUNIS habitat classification and related data sets*. Report to the European Environment Agency, Copenhagen.
- Tichý, L. (2002). JUICE, software for vegetation classification. *Journal of Vegetation Science*, 13, 451-453.
- Valachovič, M., Oľahelová, H., Stanová, V. & Maglocký, Š. (1995). *Rastlinné spoločenstvá Slovenska 1. Pionierska vegetácia*. Veda, Bratislava.
- Waterton, C. (2002). 'From field to fantasy: classifying nature, constructing Europe'. *Social Studies of Science*, 32,177-204.

John Rodwell