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Results of the fifth “*Iter Mediterraneum*” in Morocco, 8-27 June, 1992

Abstract

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A short description of the organization and development of *Iter Mediterraneum V* in Morocco is made, with indication of participants and institutions where the 2366 gatherings of vascular plants, the 314 of Bryophytes and the 195 of Lichens collected are deposited. The scientific papers resulting from the study of the plant material collected, which are the components of this volume 26 of *Bocconeia* are listed. Other scientific papers published so far with the use of plant material collected during this expedition were known are indicated.

Key words: Flora of Morocco, Itinera Mediterranea, OPTIMA.

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Introduction

This is the fifth of a series of eleven expeditions to different regions of the Mediterranean Area under the auspices of the Organization for the Phyto-Taxonomical Investigation of the Mediterranean Area (OPTIMA). The aims of the Itinera are to study and collect plants from poorly known areas, to enable young Mediterranean botanists to gain field experience from senior botanists, and mainly to increase the herbarium collections of Mediterranean plants in different centres, with priority to the conservatoire et Jardin Botaniques, Genève, and the Herbarium Mediterraneum, Palermo (Valdés, 1988a, 1988b).

Iter Mediterraneum V, organized by the Institute Agronomique et Vétérinaire Hassan II, Rabat, and the Department of Plant Biology and Ecology, Seville, under the auspices of OPTIMA, took place in Morocco from June 8th to June 27th, 1992.

It was preceded (8 June) by a preparatory seminar which took place in the Institute Agronomique et Vétérinaire Hassan II, Rabat, including the following lectures:

M. Rejdali (Rabat). Presentation du lieu de l'expédition.

M. Assbriv (Rabat). Géologie du Rif.

M. Fennane (Rabat). Flore du Maroc, avec référence spécial à la flore du Moyen Atlas et du Rif.

A. Acchal (Rabat). Végétation du Moyen Atlas.

B. Valdés (Sevilla). Presentation and organisation of the expedition.

Debate and Discussion.

During almost three weeks, plant material was collected in 65 localities (see the checklist which follows) of N and C Morocco, mainly in the Middle Atlas and the Rif, with some visits to the High Atlas, north atlantic Morocco and the plains and plateaux of northeastern Morocco. The itinerary went through Rabat, Khemiset, Kenifra, Ifrane, Azrou, Middelt, Taza, Aknoul, Taounate, Issaguèn (Ketama), Chefchaouèn, Tetouan, Larache, Kenifra and Rabat. Two four-wheel vehicles with their drivers and one Renault van were provided by the Institute Agronomique et Vétérinaire Hassan II, and excellent facilities for preparing, pressing and drying the plant material were provided by the services of the Eaux et Forêts of Azrou, Taza and Chefchaouèn.

The expedition ended in Rabat on the 27th of June by an informal meeting to decide the preparation and sending to the different participants' centres the material collected, and to distribute the identification of the collected plants amongst participants.

Participants

There were 17 participants, including the three organizers and one technician:

Organizers

- A. Achhal (Rabat)
- M. Rejdali (Rabat)
- B. Valdés (Seville)

Participants

Senior

- M. Fennane (Rabat, part time)
- H. t'Hart (Utrecht)
- S. Jury (Reading)
- P. Mazzola (Palermo, part time)
- S. Peccenini (Genova)
- F. Raimondo (Palermo, part time)
- E. Rico (Salamanca)
- R. Vogt (Berlin)

Junior

- F. Conti (Camerino)
- M. Lisci (Firenze)
- Ch. Oberprieler (Berlin)
- G. Stark (Liverpool)
- R. Wilson (Reading)

Technician

- M. Ait-Lafkih (Rabat)

Plant material

A total of 2,366 numbers (gatherings), including some “b” and even “c” or “d” numbers, were collected. Whenever possible, 13 sets of duplicates were formed. However, it was not always possible to collect enough material to form 13 sets. The only complete set was deposited in the host institution, the Institute Agronomique et Vétérinaire Hassan II, Rabat, although temporally some single sheets were sent to the centre of the participants which were charged to identify particular groups. The second most complete set was deposited in Seville. The third in Palermo, the fourth in Genève, and so on. The 13 sets are deposited in B, CAME, FIAF, G, GE, IAV, LIV, PAL, RAB, RNG, SALA, SEV and U.

Besides, two members of the expedition (S. Jury and R. Wilson) collected 314 gatherings of Bryophytes and 195 of Lichens which were incorporated to the University of Reading Herbarium (RNG), with a main set sent to the Institute Agronomique et Vétérinaire Hassan II, Rabat (IAV), and other sets sent to B, CAME, LIV, PAL and SEV.

Results

For several reasons, the results of this *Iter*, as it happened with some others (see Greuter 2012) have remained unpublished for 20 years and the plants unlabelled. However, the sets deposited in Berlin and Reading were soon labelled and incorporated to the respective herbaria (B and RNG). Part of those plants have been used by some members of the *Iter* as a source for information, has been identified by some specialist when visiting both institutions or sent on loan by Reading Herbarium to some of the authors of the *Catalogue des plantes vasculaires du nord du Maroc* (Valdés & al. 2002). Some plants of the set of Salamanca have been used for comparison by some of the contributors to *Flora Iberica* (Castroviejo & al. 1987-2012). But the plants collected were never studied in their totality.

The main result of *Iter V* is the checklist of vascular plants collected which follows separately.

Part of the Lichens collected by S. Jury and R. Wilson have been identified. The resulting list is included as a separate paper by S. Jury.

More than half of the 65 collecting localities (localities 1 to 3, 19 and 21 to 65) are placed within the area covered by the *Catalogue des plantes vasculaires du nord du Maroc* (Valdés & al. 2002). As the plants collected were not available to most of the authors of this *Catalogue*, as it could be expected some species constitute new records for one or more of the 20 sectors in which N Morocco was divided in this checklist for chorological purposes. This contribution of *Iter V* to the chorological knowledge of N Morocco is also added as a third paper.

Two of the participants made chromosome accounts on 85 of the collected species, and the results have been published elsewhere (Vogt & Oberprieler 2012). Another series of chromosome number accounts, complementary of those published by R. Vogt and Ch. Oberprieler constitute the fourth paper published in this volume, by Z. Díaz Lifante and R. Parra.

Other results of the expedition are rather punctual. The plants collected in localities 59 to 65 were used during the preparation of a checklist of vascular plants of the calcareous W Rif by Mateos & Valdés (2009, 2010a, 2010b). All gatherings of *Asphodelus* were used by Díaz Lifante & Valdés (1994) as part of the material for the preparation of a taxonomic



Fig. 1. Participants at Tahar-Souk (18 June) Standing, from left: S. Jury, S. Peccenini, H. t'Hart, E. Rico, R. Vogt, A. Achhal, R. Wilson, B. Valdés, P. Mazzola, G. Stark; kneeling, from left: M. Lisci, F. Conti, Ch. Oberprieler (photo M. Rejdali).



Fig. 2. Collecting drying paper after drying in wind, on Guercif to Nador road (14 June) (photo by S. Jury).



Fig. 3. At the summit of Jbel Tidirhine (20 June). From left: G. Stark, F. Conti, Ch. Oberprieler, S. Peccenini, B. Valdés, A. Achhal (photo by E. Rico).



Fig. 4. Clearing track to get vehicles up Jbel Tassaout (25 June). From left: R. Vogt, Ch. Oberprieler, R. Wilson, B. Valdés, F. M. Raimondo (photo by S. Jury).



Fig. 5. Jbel Talassemtane (26 June). From left: Haj (one of the drivers, and his Land Rover), forestier from Eaux et Forêts, M. Rejdali, F. M. Raimondo (photo S. Jury).



Fig. 6. On return to Rabat from Chefchaouen (last day: 27 June). From left: M. Lisci, Ch. Oberprieler, G. Stark (seating on floor), F. Conti, B. Valdés, H. t'Hart, Haj (driver), S. Peccenini, R. Wilson, E. Rico, R. Vogt, Laarbi (driver) (photo by S. Jury).

revision of this genus in W Mediterranean. The plants of *Potentilla micrantha* collected in C. Rif were used by A. Romo (1996) in the preparation of a study of genus *Potentilla* in N Morocco. Some gatherings were included by C. Romero (1996) in a note on Grasses of N Morocco. Material separately collected by R. Vogt and Ch. Oberprieler was included in a revision of genus *Anthemis* in W and N Africa (Oberprieler 1998) and as one of the paratypes of a new species of *Rhodanthemum* (Vogt 1994). Gathering 12.0515 was given as one of the exsiccata for an emended generic description of *Nivellea* by Vogt & Oberprieler (1996).

Aknowledgements

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