

OPTIMA Newsletter

OPTIMA Newsletter is a news journal for the presentation and discussion of issues pertinent to Mediterranean botany, published by the Secretariat of the Organization for the Phyto-Taxonomic Investigation of the Mediterranean Area. The editors welcome the submission of news, items and articles by all interested parties. Please send articles to:

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FREE OPTIMA MEMBERSHIP AND BOCCONEA VOLUMES

Through an agreement with the Herbarium Mediterraneum Foundation it is now possible to pay OPTIMA membership fees or to purchase volumes of *Bocconea* by sending herbarium specimens to the Herbarium Mediterraneum in Palermo. This offer is regulated as follows:

1. Only specimens from the following areas are acceptable: peri-Mediterranean countries (except Italy and France), plus Portugal and Bulgaria, the Atlantic Islands (Macaronesia), and the domain of Boissier's "Flora Orientalis" (in particular the Middle East, Transcaucasia and the Crimea). Normally, material from the country of residence (if part of this area) should be given preference.
2. The herbarium specimens must be in good condition and contain complete information with readable, durable labels. The Herbarium Mediterraneum reserves the right to return specimens judged to be of insufficient quality.
3. Each herbarium specimen will be worth 1.67 SFr. Each delivery will consist of a minimum of 15 herbarium sheets. When a group of botanists from the same institution plan to send herbarium specimens, a joint delivery is preferable.
4. Each collaborator will include a copy of the enclosed form specifying his/her name, the number of herbarium specimens sent, the credit earned and whether they wish to use it to pay OPTIMA membership fees or to purchase Bocconea volumes.
5. The package containing the herbarium specimens and the letter will be sent to: Prof. F. Raimondo, Dipartimento di Scienze Botaniche dell'Università, Via Archirafi 38, I-90123 Palermo, Italy.
6. Postage costs will be refunded to the senders by the Herbarium Mediterraneum.
7. At the end of each year, the Herbarium Mediterraneum will transfer the sum of OPTIMA membership fees earned by participants during the year to OPTIMA.

Form to be included with the delivery of herbarium specimens. One form per participant.

Name: _____

Institution: _____

Address: _____

N° of herbarium specimens () x 1.67 SFr/ specimen = _____ SFr. of credit.

I wish to use this credit to pay my OPTIMA membership fees (25.-SFr/year): _____ years of membership

I wish to purchase a copy of *Bocconea* vol. _____ at the OPTIMA member reduced price (see prices at the Publications Offer section of this OPTIMA Newsletter)

COTISATIONS A L'OPTIMA ET DES VOLUMES DE BOCCONEA **GRATIS**

Par accord avec la Fondation de l'Herbarium Mediterraneum, il est désormais possible de payer ses cotisations à l'OPTIMA et d'acheter des volumes de *Bocconeia* en envoyant des spécimens d'herbier à l'Herbarium Mediterraneum de Palerme. Cette possibilité est d'ores et déjà applicable selon les modalités suivantes :

1. Seuls des échantillons provenant de l'aire globale suivante pourront être acceptés: pays circum-méditerranéens sauf la France et l'Italie, plus le Portugal et la Bulgarie; îles atlantiques (Macaronésie); et domaine du "Flora orientalis" de Boissier (notamment le Moyen-Orient, la Transcaucasie et la Crimée). De préférence, ces échantillons proviendront du pays de résidence (s'il fait partie de l'aire globale mentionné ci-dessus).
2. Les spécimens d'herbier doivent être en bon état et comporter des informations complètes avec des étiquettes lisibles et définitives. L'Herbarium Mediterraneum se réserve le droit de retourner les spécimens jugés de qualité insuffisante.
3. Chaque spécimen d'herbier vaudra 1.67 SFr. Chaque livraison consistera en un minimum de 15 planches d'herbier. Quand un groupe de botanistes de la même institution prévoit d'envoyer des spécimens d'herbier, une expédition groupée est préférable.
4. Chaque collaborateur joindra une copie du bordereau de livraison ci-joint comportant son nom, le nombre de spécimens d'herbier envoyés, la somme payée et la destination du crédit (cotisation à l'OPTIMA ou achat de volumes de *Bocconeia*).
5. Le paquet contenant les spécimens d'herbier et la lettre seront envoyés à : Pr. F. Raimondo, Dipartimento di Scienze Botaniche dell'Università, Via Archirafi 38, I-90123 Palermo, Italy.
6. Les frais d'expédition seront remboursés aux expéditeurs par l'Herbarium Mediterraneum.
7. A la fin de chaque année, l'Herbarium Mediterraneum virera à l'OPTIMA le montant des cotisations gagnées par les participants pendant l'année.

Bordereau à joindre au paquet de spécimens d'herbier (un bordereau par participant).

Nom: _____

Institution: _____

Adresse: _____

Nombre de spécimens d'herbier () x 1.67 SFr/ spécimen = _____ SFr.de crédit.

Je souhaite utiliser ce crédit pour payer ma cotisation à l'OPTIMA (25.-SFr/year): _____ années de cotisation

Je souhaite acheter un exemplaire de *Bocconeia* vol. _____ au tarif réduit pour les membres de l'OPTIMA (voir les prix a la section "Publications Offer" de l'Informateur OPTIMA)

PUBLICATIONS OFFER

**Ordinary and
Institutional OPTIMA members
are entitled to reductions on the
prices of several publications!**

From the Institute of Botany, Bulgarian Academy of Sciences,

Flora of the Republic of Bulgaria. Volumes 4 (*Cactaceae* to *Saxifragaceae*), 5 (*Rosaceae*), 6 (*Fabaceae*), 7 (*Oxalidaceae* to *Araliaceae*), 8 (*Apiaceae* to *Cuscutaceae*) and 10 (*Scrophulariaceae* to *Valerianaceae*) are available to OPTIMA members. Prices are SF 48.- for volumes 4-8 and SF 52.- for volume 10. Postage is included in the price. Send your orders to Institute of Botany, Bulgarian Academy of Sciences, 23, Acad. G. Bonchev Str., 1113 Sofia, Bulgaria; E-mail: palam@iph.bio.acad.bg. Please credit the account: CB "Biochim" PLC, SWIFT Code: CBBIBGSF Branch "Batenberg" Code: 66084219; Bank account n 3110024518; Institute of Botany, 1113 Sofia, Bulgaria.

From the Med-Checklist Trust of OPTIMA, (Vidollet 17, CH-1202 Geneva, Switzerland),

Med-Checklist. Volumes 1, 3 and 4 are available to OPTIMA members with a special discount of 25% (reduced price: SF 76.50, SF 90.-, and SF 108.-, respectively). Please credit the account "Med-Checklist Trust of OPTIMA", No. CO 265614, with the Swiss Bank Corp., Geneva (payment on the postal cheque account of the bank, No. 12-172, is also possible - provided that the concept of the payment and the account of the "Trust" are clearly specified). If an invoice is needed, send an order to the "Trust".

From B. Cabezudo, Editor of Acta Botanica Malacitana,

Acta Botanica Malacitana, vol. 23 (1998) covers articles dealing with taxonomy, vegetation, plant biology, aeropalynology, lichens, algae and plant geography and chorology. This volume, as well as vols. 15-22 are available to OPTIMA members with a special discount of 33% (reduced price: 20.-SF/each vol.; non-member price: 30.-SF). Moreover, previously published vols. 1-14 are also available to OPTIMA members at the special reduced price of 15 SF/each. Please send this order and/or ask for further information at the following address: Dpto. Biología Vegetal, P.O. Box 59, Málaga, Spain; <http://www.uma.es/Estudios/Departamentos/BiolVeg/00Indice.html>; E-mail: abm@uma.es.

From the Museo Regionale di Scienze Naturali (Via Giolitti, 36, I-10123 Torino, Italy; Fax +39 011 4323331),

30% discount for OPTIMA members on the following books:

- G. Bono. 1996: **Flora y Vegetación del Estado Táchira Venezuela**. Monografía XX. 952 pp, 10 figs, 208 col. plates (cloth); Lit. 200000 + postage.
- D. Puntillo. 1996: **I Licheni di Calabria**. Monografía XXII. 296 pp, 104 figs, 335 color figs (cloth); Lit. 130000 + postage.
- A. Mercado Sierra, V. Holubová-Jechová and J. Mena Portales. 1997: **Hifomicetes demaciáceos de Cuba Enteroblásticos**. Monografía XXIII. 392 pp, B/W ill.; Lit. 140000 + postage.

☒ **Please send your orders directly to the addresses mentioned for the corresponding items.**

De la Fundación Nacional Fénix,

La "Fundación Nacional Fénix de España" réalise, pour la première fois, la reproduction exacte, fidèle et complète de l'oeuvre **Voyage Botanique dans le midi de l'Espagne pendant l'année**

1837, du botaniste et scientifique genevois Edmond Boissier, en collaboration avec la "Sociedad Malagueña de Ciencias". Cette oeuvre fut publiée en fascicules à Paris (France) de 1839 à 1845. Cette nouvelle édition est composée de trois tomes de grande taille (24 x 34 cm), dont deux sont des reproductions exactes de l'oeuvre originale, de 757 et 245 pages de texte, plus 181 images entièrement en couleurs, et un troisième tome avec la traduction complète de l'oeuvre à l'espagnol et un étude fait par le Professeur agrégé de l'Université de Malaga et Président de la "Sociedad Malagueña de Ciencias", m. Alfredo Asensi Marfil, qui supervise aussi la traduction de toute l'oeuvre. Comme son étude est également traduit au français, on a obtenu ainsi une oeuvre totalement bilingue (espagnol-français).

Les trois tomes sont reliés artisanalement en cuir et cuir synthétique, avec des nerfs, petites tuiles et incrustations en or. Étant donné la qualité de l'oeuvre et son importance scientifique et bibliographique, on n'a pas ménagé ni nos efforts ni les matériaux pour obtenir une édition spéciale de luxe. Dans cette oeuvre on a catalogué, pour la première fois, des espèces botaniques uniques à Malaga et Granada, en montrant à la communauté scientifique internationale, entre autres, notre emblématique "pinsapo" et, pour la première fois, environ 200 espèces autochtones de Sierra Nevada à Granada.

Comme membre d'OPTIMA que vous êtes, nous voulons vous faire une offre spéciale qui sera disponible seulement jusqu'an 31 juillet: *Prix comptant*: 600 euros, ports et coûts gratuits. *Prix à terme*: 60 euros par mois, pendant 10 mois (sans intérêts). L'oeuvre sera envoyée lorsque tous les paiements soient réglés. Port dû. À partir du premier août prochain, le prix sera de 760 euros et, plus tard, 900 euros.

Vous pouvez faire votre réservation en remplissant le bon de commande ci-joint, avec l'annotation "OPTIMA" pour que vous puissiez en profiter de l'offre spéciale, et en l'envoyant par la poste, fax ou e-mail: Fundación Nacional Fénix; Alameda de Colón, 34, 11º-3, 29001 - MÁLAGA (España); Tel.: 34 952061028; Fax: 34 952061029; E-mail: fenix@grupofenix.com

BON DE COMMANDE

Je voudrais qu'on m'envoie l'oeuvre "Voyage Botanique dans Le midi de L'Espagne pendant l'année 1837" d'Edmond Boissier, patronnée par la Fondation nationale Fénix, composée de trois volumes (2 fac-similés et 1 avec étude et traduction français-espagnol reliés de façon intégrale en cuiret et cuir synthétique en édition limité et énumérée, jointe à l'offre du cahier "Les pinsapos de Boissier" en édition exclusive pour les premiers 500 souscripteurs).

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From the OPTIMA Secretariat,

- B. Valdés & J. Pastor (eds.) **Proceedings of the VIII OPTIMA Meeting, Sevilla, 25 September - 1 October, 1995. Lagasalia**, 19. Universidad de Sevilla, Sevilla, 1997. 942 pages, black and white illustrations (25% discount OPTIMA ordinary members, 50% discount OPTIMA institutional members).
- P. Mouterde, **Nouvelle flore du Liban et de la Syrie** (33% discount). Vol. 1 (text & atlas), Vol. 2 (text & atlas), Vol. 3 (text & atlas). Single fascicles of the text of Vol. 3 are also still available upon request.
- H.W. Lack (ed.), **Current projects on the Mediterranean flora - a register**. 2nd edition. (33% discount). Some copies of the 1st edition are still available.
- F.M. Raimondo & W. Greuter (eds.) **Flora Mediterranea and Bocconea** (70% and 20% discount). **Flora Mediterranea** and **Bocconea** are published by the Herbarium Mediterraneum Panormitanum under the auspices of OPTIMA. These publications cover articles dealing with plant geography, floristics and systematic botany in its widest sense, relating to Mediterranean plants of all groups, whether living or fossil. A special emphasis is placed on articles that exceed national limits in coverage or by their general interest. *Flora Mediterranea* is a journal published annually with a variety of articles whereas *Bocconea* is devoted to monographic subjects:

Vol. 1: Results of the First "Iter Mediterraneum" in south-eastern Spain, June-July 1988.

Vol. 2: A check-list of Sicilian fungi.

Vol. 3: Results of the Second "Iter Mediterraneum" in Israel, March-April 1989.

Vol. 4: Current research on the biology of threatened plant species of the Mediterranean Basin and Macaronesia: a database.

Vol. 5: (I and II): Proceedings of the VII OPTIMA Meeting in Borovetz, 18-30 July 1992.

Vol. 6: Contributions towards a checklist of Mediterranean Lichens.

Vol. 7: Proceedings of the Workshops on "Conservation of the Wild Relatives of European Cultivated Plants".

Vol. 8: Catalogue des plantes vasculaires rares, menacées ou éndémiques du Maroc.

Vol. 9: The systematics of *Anthemis* L. (Compositae, Anthemideae) in W and C North Africa

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Please send this order form to: OPTIMA Secretariat - Dr. J. M. Iriondo. Dpto. Biología Vegetal, E.U.I.T. Agrícola. Universidad Politécnica, Ciudad Universitaria. E-28040 Madrid, SPAIN

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FIELD WORK NEWS QUESTIONNAIRE

In order to be able to provide you the best and most exhaustive information on botanical expeditions taking place in the Mediterranean area, please take a few minutes and collaborate by filling out this questionnaire. The completed forms should be sent to the Secretary of the OPTIMA Commission for Floristic Investigation, Prof. B. Valdés, Dpto. Biología Vegetal y Ecología Universidad de Sevilla Apdo. 1095 E-41080 Sevilla SPAIN; Tel: 34 54 557047; Fax: 34 54 557059; E-mail: bvaldes@cica.es

Collectors: _____

Postal address: _____

Itinerary: _____

Dates: _____

Nº of sheets collected: _____

Nº of duplicates offered in exchange: _____

Herbarium where the material is (or will be) kept: _____

Groups particularly well represented offered for identification by specialists: _____

Additional information on expeditions undertaken by other botanists, not necessarily members of

OPTIMA: _____

Date: _____

Signature: _____

NOUVELLES DE L'OPTIMA

par José M. Iriondo

Il est difficile d'écrire sur quoi que ce soit ces temps-ci dans un contexte méditerranéen sans évoquer la situation actuelle en Yougoslavie. Nous ne pouvons que souhaiter que cessent rapidement la violence et les destructions dans cette région et espérer en un meilleur avenir qui verra régner la coopération et l'amitié entre tous ceux qui vivent dans la région méditerranéenne.

COMITÉ INTERNATIONAL

En 1998, les membres du Comité ont approuvé le rapport annuel et le rapport financier pour 1997, soumis par le Secrétaire au nom du Président et du Conseil Exécutif. Le compte-rendu de la réunion du Comité tenue le 11 mai 1998 à Paris a également été approuvé par accord tacite.

CONSEIL

Le conseil a donné son accord pour maintenir sans changement les cotisations des membres de l'OPTIMA pour 1999. Le compte-rendu de la réunion du Comité tenue en mai 1998 à Paris a également été approuvé par accord tacite.

SECRÉTARIAT

Le Secrétariat s'est occupé de la gestion des comptes de l'OPTIMA et de ceux de la Commission des Publications et de la Commission des Prix, ainsi que de la gestion de la vente des publications et la tenue des fichiers des membres. Le Secrétariat de l'OPTIMA a également assuré la liaison entre les membres du Conseil et du Comité et les groupes de travail et commissions de notre Organisation.

Les autres activités en cours comprennent la publication des Nouvelles de l'OPTIMA et la mise à jour du site Web de l'OPTIMA. Un annuaire des membres consultable sur ce site est également en préparation.

DÉCÈS

Le Prof. Dr Clara Heyn, Jérusalem, Israël, est décédée le 27.12.1998 à l'âge de 74 ans.

Le Prof. Dr Karl Heinz Rechinger, Vienne, Autriche, est décédé le 30.12.1998 à l'âge de 92 ans.

Les notices nécrologiques détaillées de ces deux membres éminents de l'OPTIMA seront publiées dans le prochain volume de *Flora Mediterranea*.

LE POINT SUR LES COMMISSIONS

COMMISSION POUR LA DIFFUSION DES CONNAISSANCES SUR LES PLANTES MÉDITERRANÉENNES

Des progrès significatifs ont été accomplis dans l'élaboration du livre "Paysages végétaux du Bassin méditerranéen". Les chapitres proposés pour la France, la Corse, l'Italie, la Sardaigne, la Turquie, Israël et la Jordanie ont été diffusés auprès des membres de la Commission afin de procéder à la relecture éditoriale. Les chapitres sur l'Espagne, la Syrie et le Liban, et la Sicile sont en préparation. On cherche encore des rédacteurs pour les chapitres concernant les Balkans, Chypre et l'Afrique du Nord.

En 1999, nous comptons combler les vides, écrire et mettre en forme les chapitres de l'Introduction générale et réunir les illustrations et les cartes adéquates.

Pour plus d'informations, contacter le Prof. Uzi Plitmann, Department of Botany, The Hebrew University, Jerusalem 91904, Israel. E-mail: uzi@vms.huji.ac.il

COMMISSION DE L'HERBARIUM MEDITERRANEUM

Les activités des membres de la Commission de l'Herbarium Mediterraneum sont confondues avec celles du Comité Scientifique de la Fondation Internationale *Pro Herbario Mediterraneo*.

Sur le front des publications, le vol. 8 de *Flora Mediterranea* et les volumes 8 et 9 de *Bocconeia* ont été publiés et financés par la Fondation en 1998. Par ailleurs, la Fondation a subventionné l'impression de "La collezione algologica storica dell'Erbario mediterraneo" par B.M. Ferreri dans le journal *Naturalista siciliano*. Pour 1999, on compte publier plusieurs volumes de *Bocconeia* contenant les résultats des Itinera Mediterranea en Sicile et à Chypre, le catalogue des plantes vasculaires du Nord du Maroc, et les Actes du IXème Colloque de l'OPTIMA. Le Volume 9 de *Flora Mediterranea* sera également publié à la fin de cette année.

Le Comité Scientifique a examiné les candidatures pour les deux bourses d'études et de recherches de six mois à l'*Herbarium Mediterraneum* de Palerme, qui devaient être attribuées à des diplômés de biologie/sciences naturelles spécialisés en taxinomie végétale/phytogéographie et résidents dans un pays d'Afrique du Nord ou d'Europe orientale. Après examen approfondi, le Comité Scientifique a décidé d'attribuer une bourse à B. Tahiri (Maroc) et de partager l'autre entre E. Kozuharova et D. Uzunov (Bulgarie).

Concernant l'herbier, l'informatisation de la collection d'environ 350.000 spécimens (cryptogames compris) sera entreprise en 1999.

COMMISSION POUR LA CARYOSYSTÉMATIQUE

La publication de la rubrique "Nombres de Chromosomes Méditerranéens" dans *Flora Mediterranea* pour les huit années successives fut à la fois fructueuse et gratifiante. 126 nouveaux comptages (no. 899-1025) ont été ajoutés provenant de huit contrées ou régions différentes, à savoir la Bulgarie, le Caucase, la Grèce, l'Italie, le Maroc, le Portugal, l'Espagne et la Turquie.

En ce qui concerne le projet de création d'une base de données caryosystématique pour les comptages de chromosomes méditerranéens, jusqu'ici les progrès se résument à la création de plusieurs bases de données dans différents pays. Il est urgent d'avancer dans la coordination et la standardisation de ces bases. Le cadre de l'*Euro + Med Plant Base* peut être utile à cet égard.



by José M. Iriondo

It is difficult to write about anything these days in a Mediterranean context and not make mention of the current situation in Yugoslavia. We can only wish for a quick end to the violence and destruction in the area and hope for a better future in which cooperation and friendship among the people who live in the Mediterranean area prevail.

INTERNATIONAL BOARD

In 1998, the Board members approved the annual report and the financial report for 1997, submitted by the Secretary on behalf of the President and the Executive Council. The minutes of the Board meeting held in Paris on May 11th 1998 were also approved by tacit consent.

EXECUTIVE COUNCIL

The Council approved to keep OPTIMA membership fees unchanged for 1999. The minutes of the meeting held in Paris in May 1998 were approved by tacit consent.

SECRETARIAT

The Secretariat was active keeping OPTIMA's accounts and the accounts of the Publications Commission and Prize Commission and managing publication sales and membership files. The OPTIMA Secretariat also functioned as a liaising centre for Council and Board members and the working groups and commissions of our organization.

Further activities taking place at this moment include the edition of OPTIMA Newsletter and the updating of the OPTIMA Website. A membership database that can be consulted through the OPTIMA Website is also in preparation.

DEATHS

Prof. Dr. Clara Heyn, Jerusalem, Israel, died on 27.12.1998 at the age of 74.

Prof. Dr. Karl Heinz Rechinger, Vienna, Austria, died on 30.12.1998 at the age of 92.

Full obituaries of these two prominent OPTIMA members will be published in the next volume of *Flora Mediterranea*.

UPDATES ON COMMISSIONS

COMMISSION FOR THE DIFFUSION OF KNOWLEDGE ON MEDITERRANEAN PLANTS

Significant progress has been made in the compilation of the book on "The Vegetal Landscapes of the Mediterranean". The chapters on France, Corsica, Italy, Sardinia, Turkey and Israel and Jordan have been submitted and distributed among the Commission members for editorial review. The chapters on Spain, Syria-Lebanon and Sicily are under preparation. Contributors are still being sought for the chapters on The Balkans, Cyprus and North Africa.

In 1999, we expect to fill in the gaps, write and edit the chapters of the General Introduction and compile the relevant illustrations and maps.

For further information, please contact: Prof. Uzi Plitmann, Department of Botany, The Hebrew University, Jerusalem 91904, Israel. E-mail: uzi@vms.huji.ac.il

HERBARIUM MEDITERRANEUM COMMISSION

The activities of the members of the Herbarium Mediterraneum Commission are concentrated in the Scientific Committee of the International Foundation *Pro Herbario Mediterraneo*.

On the publishing front, *Flora Mediterranea* vol. 8, and *Bocconea* vols. 8 and 9 were published and

funded by the Foundation in 1998. In addition, the Foundation also subsidised the printing of "La collezione algologica storica dell'Erbario mediterraneo" by B.M. Ferreri in the journal *Naturalista siciliano*. For 1999, several volumes of *Bocconea* are expected to be published including the results of the Itinera Mediterranea in Sicily and Cyprus, the catalogue of vascular plants of Northern Morocco, and the Proceedings of the IX OPTIMA Meeting. Volume 9 of *Flora Mediterranea* will also be published at the end of this year.

The Scientific Committee evaluated the applications for the two six-month study and research grants, at the *Herbarium Mediterraneum* in Palermo, to be awarded to graduates in biology/natural sciences, specialised in plant taxonomy/phytogeography and residents in North African or Eastern European countries. Upon thorough consideration, the Scientific Committee decided to award one grant to B. Tahiri (Morocco) and the second grant is to be shared by E. Kozuharova and D. Uzunov (Bulgaria).

With regard to the herbarium collection, the computerisation of the c. 350.000 specimens (cryptogams included) will be undertaken in 1999.

COMMISSION FOR KARYOSYSTEMATICS

The publication of the column "Mediterranean Chromosome Number Reports" in *Flora Mediterranea* for the eighth successive year was both fruitful and rewarding. 126 new reports (no. 899-1025) were added from eight different countries or regions, namely Bulgaria, the Caucasus, Greece, Italy, Morocco, Portugal, Spain and Turkey.

With regard to the project for the creation of a karyosystematic database for Mediterranean chromosome records, so far progress is being achieved through the creation of several karyological databases in different countries. These databases urgently need to be coordinated and standardized. The frame of Euro + Med Plant Base may be helpful in this respect.



COMPLETION OF THE SEED COLLECTION PROJECT OF TURKISH ENDEMICS

by TUNA EKIM

This project, supported by the government through TÜBİTAK (Turkish Scientific Research Council), started in 1992 and aimed to collect seeds of endemic plants of Turkey. About 30 researchers from 16 different universities participated in the project.

As mentioned in OPTIMA Newsletter n° 31, several new species were found in the first phase of the collection period and some very interesting collections were carried out for some plant species which were known only from the type or which had not been collected for a long time.

At the end of the field work, the western part of the country had been studied quite intensively, but only a limited area of eastern Turkey could be examined due to terrorism. Seeds of 1771 taxa belonging to 1622 species were collected and 518 taxa belonging to 498 species were gained as flowering material. In all, 2120 endemic plant species were gathered. Numerous non-

endemic specimens were also collected. One new genus (Ekimia), thirty new species and three new records for Turkey were found.

The seeds are kept mainly at the Menemen Gene Bank, which belongs to the Ministry of Agriculture. Plant specimens are deposited mostly in local herbaria in the institutions where the researchers work. Detailed computer data are kept in the project center, GAZI Herb. A duplicate will be given to the Biological Information Center (Abant İzzet Baysal Ün.) in the near future.

At the end of the project 62 endemic plant species, which had previously been considered by the "Flora of Turkey and East Aegean Islands" and other floristic research records as I (indeterminate) and K (insufficiently known) under the IUCN categories, were collected. Numerous taxa which had been known only from type gathering were collected for the second time.

NETWORK OF MEDITERRANEAN SEEDBANKS

by JOSE M. IRIONDO

At the meeting of the OPTIMA Commission for the Conservation of Plant Resources held in Paris in May 1998, the need for better cooperation and co-ordination among Mediterranean seedbanks was observed and it was accorded that the Commission should promote the creation of a network of Medi-terranean seedbanks. The need for such an initiative has also been mentioned in other Mediterranean fora such as the IUCN Mediterranean Islands Plant Specialist Group or the Symposium on Threatened Plant Conservation in the Western Mediterranean Region held in Madrid in January 1999.

Some of the possible benefits of the creation of a network of seedbanks could be:

1. the exchange of technical information on seed preservation.
2. the publication of a practical technical guide to help the establishment of new seedbanks or the creation of a listserver for the same purpose.
3. the standardization of seedbank information

management.

4. global assessment of current holdings in the seedbanks and needs or gaps for further collection.
5. the coordination of seed collecting expeditions.
6. the establishment of agreements between seedbanks for the storage of duplicate collections.
7. the creation of a common database on legislation pertinent to seed collection, storage and distribution in Mediterranean countries.
8. the development of a forum to discuss critical issues such as the policy of accessibility to the collections from public and private sectors.

The purpose of this message is to contact all Mediterranean seedbanks dedicated to the conservation of wild plants and to gather information on what the expectations for a Mediterranean seedbank network are. If you are interested in participating in this initiative please contact and send your opinion to:

Jose M. Iriondo. Dpto. Biología Vegetal. EUIT

Agrícola, Universidad Politécnica, E-28040 Madrid,

Spain; E-mail: iriondo@ccupm.upm.es.

FUNGI NEWS

PROJECTS OF THE NEW OPTIMA COMMISSION ON FUNGI

BY SILVANO ONOFRI & GIUSEPPE VENTURELLA

The OPTIMA Commission on fungi was established during the last OPTIMA meeting in Paris (May 1998), for promoting and developing research on different mycological topics such as: biodiversity and conservation, species monitoring and mapping, elaboration of occurrence-distribution data and red-lists, systematics and phylogeny of taxa of special interest, ecology of fungal communities, ecophy-siology, symbioses and host-plant interactions, population genetics and speciation processes, potential use / exploitation of selected species for mushroom cultivation, bioremediation of agro-industrial waste/residue, fodder production, etc.

At the Planta Europa Meeting in Uppsala (June 1998), it was recommended to increase attention and activities dealing with conservation of the cryptogams, including fungi. Therefore, the first activity of the Commission will deal with the proposal and execution of a specific project on the "Compilation of a Checklist of Fungi in Mediterranean Countries", starting in Italy, France, Spain and Greece.

The project will be executed according to the following schedule:

1. Meeting of interested scientists and representatives from amateur associations
2. Selection of the research group
3. Preparation of the detailed program and its submission for financial support
4. Bibliographical search to sort out records of fungal species of the Mediterranean countries (separately for each country)
5. Collection of data from professional and amateur mycologists
6. Compilation of national fungi lists
7. Verification of synonymies, authority, validity and priority of each fungal name
8. Preparation of an on-line database
9. Publication of the checklist (on paper).

The compilation of the checklist is now partially funded by the Italian Ministry for Scientific and Technological Research, within the Italian national program on "Cryptogams as biomonitors in terrestrial ecosystems", coordinated by P.L. Nimis. The compilation of the Italian checklist started, following the layout used for the Med-Checklist of Mediterranean Lichens. The data on fungal species, or infraspecific taxa, currently include: name, author, reference, synonym(s) and references of Italian records for each different region.

A meeting of the OPTIMA Commission, broadened to experienced mycologists from Mediterranean Countries, will be held in Palermo, in order to designate Regional coordinators.

A second project will deal with the mapping of Mediterranean Fungal species. Representatives of CEMM (Confederatio Europaea Mycologiae Mediterraneensis), ECCF (European Council for Conservation of Fungi) and SBI (Italian Botanical Society) attended a meeting on the checklisting and mapping of fungal species, held in Pisa on February 17th, 1999. During this meeting it was proposed to combine the two lists which the Italian Botanical Society (Working Group on Mycology) and the CEMM are working on. The resulting list is as follows:

Amanita caesarea (Scop. : Fr.) Pers.

Amanita phalloides (Fr. : Fr.) Link

Amanita porphyria (Albertini & Schweiniz : Fr.) Mlady

Auricularia auricula-judae (Bull.) Wettstein

Auriscalpium vulgare S. F. Gray

Boletus aereus Bull. : Fr.

Boletus impolitus Fr.

Boletus satanas Lenz

Chroogomphus fulmineus (Heim) Courtecuisse

- Cortinarius aleurius* Maire
Cortinarius bulliardii (Pers. : Fr.) Fr.
Cortinarius croceocoeruleus (Pers. : Fr.) Fr.
Cortinarius ionochlorus R. Maire
Cortinarius orellanus Fr.
Cortinarius suaveolens Bataille & Joachim
Cortinarius trivialis J.E. Lange
Entoloma bloxami (Berk. & Br.) Sacc. (= *E. madidum* Fr. ss. auct.)
Entoloma lividoalbum (Kühner & Romagn.) Kubika
Entoloma sinuatum (Bull. Ex Pers. : Fr.) Kummer (= *E. lividum* ss.auct.)
Fistulina hepatica (J. C. Schaeffer : Fr.) With.
Gomphus clavatus (Pers. : Fr.) S. F. Gray
Gyroporus castaneus (Bull. : Fr.) Quélet
Hebeloma radicosum (Bull. : Fr.) Ricken
Hebeloma sarcophyllum (Peck) Sacc.
Helvella crispa (Scop. : Fr.) Fr.
Hydnellum zonatum (Batsch) P. Karsten (= *H. conrescens* (Pers.) Banker)
Hygrophorus latitabundus Britzelmayer (= *H. limacinus* ss.auct.)
Hygrophorus marzuolus (Fr. : Fr.) Bresadola
Hygrophorus nemoreus (Pers. : Fr.) Fr.
Hygrophorus penarius Fr.
Hygrophorus personii Arnolds (= *H. dichrous* Kühner & Romagn.)
Hygrophorus roseodiscoideus Bon & Chevassut
Hygrophorus russula (Fr. : Fr.) Quélet.
Hymenochaete cruenta (Pers. : Fr.) Donk
Inocybe asterospora Quélet.
Inocybe bongardii (Weinm.) Quélet. (incl. var. *pisciodora* (Donad. & Riouss.) Kuyper)
Lactarius atlanticus Bon (incl. f. *strigipes* Bon)
Lactarius chrysorrheus Fr.
Lactarius ilicis Sarnari (= *L. curtus* ss.auct.)
Lactarius mediterraneensis Llistosella & Bellù
Lactarius necator (Bull. : Fr.) Karsten.
Leccinum lepidum (Bouchet in Essette) Quadraccia
Marasmius alliaceus (Jacq. : Fr.) Fr.
Mycena pelianthina (Fr. : Fr.) Quélet
Omphalotus olearius (DC. : Fr.) Fayod
Phallus impudicus L. : Pers.
Phylloporus rhodoxanthus (Schweiniz) Bresadola subsp. *europaeus* Singer
Pisolithus arhizos (Scop.) Rauschert
Pseudohydnum gelatinosum (Scop. : Fr.) P. Karsten
Pycnoporus cinnabarinus (Jacq. : Fr.) P. Karsten
Rozites caperatus (Pers. : Fr.) P. Karsten
Russula acrifolia Romagn.
Russula rubroalba (Singer) Romagn.
Russula seperina Dupain
Russula virescens (Schaeff.) Fr.
Strobilomyces strobilaceus (Scop. : Fr.) Berk.
Suillus bovinus (L. : Fr.) O. Kuntze
Tremiscus helvelloides (DC. : Fr.) Donk
Tricholoma acerbum (Bull.:Fr.) Quélet.
Tricholoma aurantium (Schaeff.:Fr.) Ricken
Tricholoma bresadolani Clemençon
Tricholoma equestre (L.:Fr.) Kummer (= *T. flavovirens* ss. auct = *T. auratum* ss. auct.)
Tricholoma squarrulosum Bres.
Tuber aestivum Vittadini
Tuber rufum Pico : Fr.
Verpa digitaliformis (Müll. : Fr.) Swartz

This list of 66 species will be used to start the mapping of Fungal species of Mediterranean countries. During the meeting on "Mapping grid systems" (May 1998) it was stated that all European mapping programs should adopt a common Chorological Grid Reference System (CGRS) based on UTM and MGRS (Military Grid Reference System).

The basic concept is similar to the grid systems used so far: the grid cells are 50x50 square kilometers; as an exception cells of a different size are at the boundaries of the six-degree wide longitudinal zones.

All projects will adopt the CGRS for further mapping, and try to convert their existing data to it. Thus, this common reference grid will also need to be used for fungal data.

According to the resolutions made during the last Planta Europa Meeting (Uppsala, Sweden), the OPTIMA Commission on Fungi will also be involved in: encouraging nature conservation organizations to employ cryptogamic botanists to facilitate the conservation of cryptogams; amalgamating the national checklists on fungi in a European checklist, with an indication of the distribution of each species; encouraging the publication of Red-lists and the production of popular publications to promote conservation and raise the status of fungi; including selected threatened fungi on Appendix 1 of the Bern Convention and Annexes II and IV of the Habitats Directive.

HERBARIUM NEWS*

edited by PALOMA BLANCO

THE SPANISH BRYOPHYTE HERBARIA

by FRANCISCO LARA

The earliest bryological activity in Spain dates from the 18th century. During the 19th century, several collections were made in different parts of the country (Casas *et al.* 1995, Sérgio *et al.* 1994). But it was not until the early 20th century that a prominent Spanish bryologist emerged: Antonio Casares Gil. His relevant work served as a reference for many decades, and his unfinished *Flora Ibérica, Briófitas* (Casares-Gil, 1919 and 1932) is still today the only Spanish bryoflora. During the second quarter of the century, bryological work in Spain was carried out by botanists Pierre and Valentine Allorge (Casas, 1982; Heras & Infante, 1997), whose activity was plentiful. The second half of the century has been marked by the work of Creu Casas, pioneer of present Spanish bryology. Apart from her intense bryological production, she has helped and encouraged most of the approximately twenty Spanish bryological research groups which are currently active.

In the last decades, Spanish bryology seems to be in good health (Ros *et al.* 1996). The *Sociedad Española de Briología* now has 70 members, including a large number of young Spanish bryologists. In addition to the individual collecting efforts of each research team, periodical meetings (*Reuniones Briológicas*), aimed at collecting and studying less known areas, have been held since 1969. In 1998, thanks to the financial aid of the *Dirección General de Enseñanza Superior (DGES)* of the Spanish *Ministerio de Educación y Ciencia*, a great bryological project that will culminate with the publishing of the Iberian Bryophyte Flora was started. At this moment, new or little known areas are being explored as a first phase of the project.

There are bryophyte herbaria all over the country, in consonance with the distribution of the research teams. We have tried to include the main bryophyte collections in the following list, but it is not exhaustive. Information has been gathered in most cases through contact with the different herbarium curators and

owners, who kindly filled out a questionnaire with the needed data.

Institutional herbaria are indicated by their *Index Herbariorum* acronyms and private herbaria by names or abbreviations used by their owners.

- **ARAN** (Sociedad de Ciencias Aranzadi). Started in 1982, it holds 2500 sheets of bryophytes, mainly collected by I. Aizpuru from Guipuzcoa and northwestern Navarra (North Spain). This collection is now deposited in the Museo de Ciencias Naturales de Álava, Siervas de Jesús, 24, E-01001 Vitoria. Keeper: Patxi Heras (see VIT).
- **BCB** (Unitat de Botànica, Facultat de Ciències, Universitat Autònoma de Barcelona, Bellaterra). Started in 1944, it is the largest Spanish herbarium, holding 50.200 bryophyte sheets (approximately 40.000 mosses and 10.000 hepatics). It contains several exsiccatae and four type specimens. The best represented areas are Cata-lonia, the Iberian Peninsula and the Balearic islands. The principal collectors are C. Casas, M. Brugués and R.M. Cros. Relevant collections include P. Seró and J. Vives herbaria and exchange collections (Société d'Exchange des Muscinées, Brioteca Hispánica). Keeper: Creu Casas. E-mail: rmcros@einstein.uab.es, phone: 34 93 5811989. Botànica, Facultat de Ciències, Universitat Autònoma de Barcelona, E-08193 Bellaterra.
- **BCC** (Facultat de Biologia, Universitat de Barcelona). Started in 1920, it holds approximately 5.000 numbered sheets of bryophytes (77% mosses and 23% hepatics), mainly collected by I. Álvaro from Catalonia. Keeper: Antonio Sánchez. E-mail: herbari.bcc@d3.ub.es, phone: 34 93 4021571. Departament de Biologia Vegetal (Botànica), Avda. Diagonal 645, E-08028, Barce-

* Please send all items suitable for publication under this heading directly to the editor of this column: Paloma Blanco, Real Jardín Botánico, Plaza de Murillo, 2, E-28014 Madrid, Spain.

lona.

- **BIO** (Facultad de Ciencias, Universidad del País Vasco). Started in 1985, it contains close to 2.000 sheets of bryophytes, collected mainly by M. Infante from Macizo del Gorbea (Basque region). This collection is now deposited in Museo de Ciencias Naturales de Álava, Siervas de Jesús, 24, E-01001 Vitoria. Keeper: Patxi Heras (see VIT).
- **FCO-Brief**. (Facultad de Ciencias, Departamento de Biología de Organismos y Sistemas, Universidad de Oviedo). Started in 1970, it holds over 2.200 numbered sheets of bryophytes, with a collection of P. Allorge (*Bryotheca Iberica* 1-250). The northwestern Iberian Peninsula is the best represented area. The main collectors are R. M. Simó, M. C. Fernández Ordóñez and E. Vigón. Keeper: María Carmen Fernández Ordóñez. E-mail: mcfernan@sci.cpd.uniovi.es, phone: 34 985 104786. Departamento de Biología de Organismos y Sistemas, Catedrático Rodrigo Uría, E-33006 Oviedo.
- **GDAC** (Facultad de Ciencias, Departamento de Biología Vegetal, Universidad de Granada). Started in 1960, it keeps round 5.500 sheets of mosses and 1.000 sheets of hepatics, mainly from Andalusia. The principal collectors are J. A. Gil, J. Varo and M. L. Zafra. Keeper: J. Eduardo Linares Cuesta. E-mail: elinaires@goliat.ugr.es, phone: 34 958 246329. Departamento de Biología Vegetal (Botánica), E-18071 Granada. Herbarium information available at <http://www.ugr.es/~herbario>
- **IBA** (Instituto Asturiano de Taxonomía y Ecología Vegetal, Pravia). Started in 1986, it holds over 8.000 sheets of mosses from Northern Spain, South America and Morocco, mainly collected by J. Muñoz. *Grimmiaceae* is the best represented family. It contains over ten type specimens and seven exsiccatae. Keeper: Jesús Muñoz. E-mail: jmunoz@ma-rjb.csic.es, phone: 34 91 4203017.
- **JACA** (Instituto Pirenaico de Ecología, Jaca). Started in 1967, it contains 500 sheets of bryophytes from montane and subalpine Pyrenean woods, mainly collected by P. Monserrat. Only a part of the material in this collection has been identified. Keeper: Daniel Gómez. E-mail: ipegg15@fresno.csic.es, phone: 34 974 361441. Apartado de correos 64, E-22700 Jaca, Huesca.
- **LEB** (Facultad de Biología, Universidad de León). Started in 1980, it holds over 1.000 sheets of bryophytes, mainly saxicolous mosses from León province and surroundings collected by B. Llamas. Keeper: Elena de Paz Canuria. E-mail: dbvepc@isidoro.unileon.es. Departamento de Biología Vegetal (Botánica), Campus de Vegazana s/n, E-24071 León.
- **MA** (Real Jardín Botánico, Madrid). Started in 1755, it holds over 17.000 bryophyte sheets (14.121 in MA-Musci and 2.867 in Ma-Hepat), mainly from the Iberian Peninsula. It contains several type-specimens and exsiccatae. Important historical collectors are Antonio Casares Gil Emilio Guinea, Mariano Lagasca and Simon de Rojas Clemente. Keeper: Francisco Pando. E-mail: pando@ma-rjb.csic.es, phone: 34 91 4203017. Plaza de Murillo 2, E-28014 Madrid. Herbarium information available at <http://www.rjb.csic.es/colecciones/herbario/crypto.htm>
- **MACB** (Facultad de Biología, Universidad Complutense de Madrid). Started in 1964, it keeps over 3500 sheets of bryophytes (data not updated). Important collectors are M.E. Ron, C. Casas and especially E. Fuertes. Keeper: María Andrea Carrasco. E-mail: carrasco@eucmax.sim.ucm.es, phone: 34 91 3944781. Departamento de Biología Vegetal I, Ciudad Universitaria, E-28040 Madrid. Not available for loan.
- **MAF** (Facultad de Farmacia, Universidad Complutense de Madrid). Started in 1893, it contains 2.400 sheets of bryophytes, mainly from the Iberian Peninsula. It holds some historical collections and exsiccatae (non catalogued and not available for loan): B. Lázaro Ibiza (including C. Baenitz and C. Touton), D. Dietrich, J. C. Vives (*Bryotheca Catalonica*, 1-X-1969), *Herbarium Vertizaranenense* (61 numbers). Keeper: José Pizarro. E-mail: majherb@eucmax.sim.ucm.es, phone +34 91 3941769. Departamento de Biología Vegetal II, Plaza de Ramón y Cajal s/n, E-28040 Madrid.
- **MGC** (Departamento de Biología Vegetal, Universidad de Málaga). Started in 1972, it contains 1300 sheets of bryophytes, mostly from Málaga and Cádiz (Andalusia), mainly collected by J. Guerra. Keeper: F. David Navas. E-mail: abm@uma.es, phone 34 952 133342. Apartado 59, E-29080 Málaga. Herbarium information available at <http://www.uma.es/Estudios/Departamentos/BiolVeg/00Indice.html>
- **MUB** (Facultad de Biología, Universidad de Murcia). Started in 1981, it holds over 8.000 sheets of bryophytes, mainly Mediterranean terricolous mosses, especially from southeastern Spain and Morocco. The principal collectors are J. Guerra, R. M. Ros and M. J. Cano. Over 10 type specimens. Keepers: Rosa M. Ros and María Angeles Caravaca. E-mail: rmros@fcu.um.es, phone: 34 968 364989. Departamento de Biología Vegetal, Campus de Espinardo, E-30100 Murcia.
- **PAMP** (Facultad de Ciencias, Universidad de Navarra). Started in 1970, it holds over 6.100 sheets of mosses and 1.200 sheets of hepatics, chiefly from beech and oak forests of the Navarra province (North Spain). The main collectors are A. Ederra, A. de Miguel, E. Fuertes and J. Martínez

Abaigar. Keeper: Alicia Ederra. E-mail: aederra@unav.es, phone: 34 948 425600. Departamento de Botánica, Irunlarrea s/n, E-31071 Pamplona.

- **SALA-BRYO** (Facultad de Farmacia, Universidad de Salamanca). Started in 1983, it holds 3.200 sheets of mosses and 1.600 sheets of hepatics. The Salamanca province and central-western Spain are the best represented areas. The principal collectors are M. J. Elías and J. M. García de las Heras. Keeper: María Jesús Elías. E-mail: mjelias@gugu.usal.es, phone: 34 923 294400 ext. 1569. Departamento de Botánica, Campus Miguel Unamuno, E-37007 Salamanca.
- **SANT-bryo** (Facultad de Farmacia, Universidad de Santiago). Started in 1979, it holds 3.150 sheets of bryophytes, mainly from northwestern Spain, with a well represented flora from littoral, atlantic woods and mires. The principal collectors are J. Reinoso, M.C. Viera, J. Otero, G. Paz and A. García. Keeper: Juan Reinoso. E-mail: bvreinos@uscmil.usc.es, phone: 34 981 563100 (ext. 13263). Departamento de Botánica, E-15706 Santiago de Compostela, A Coruña.
- **TFC-Bry** (Facultad de Biología, Universidad de La Laguna). Started in 1971, it holds over 10.000 sheets of bryophytes, mainly from the Canary Islands, the Azores and the Iberian Peninsula. The best represented floras are those from laurel forests, historical and recent lavas, volcanic caves and tubes. The principal collectors are A. Losada Lima, J. M. González Mancebo, C. D. Hernández and E. Beltrán. Keeper: Ana Losada Lima. E-mail: aloslada@ull.es, phone: 34 922 318438-39. Departamento de Botánica, E-38271 La Laguna, Tenerife.
- **VAB-BRIOF** (Facultat de Ciències Biològiques, Universitat de València). Started in 1976, it contains 3.201 sheets of mosses and 900 sheets of hepatics and anthocerotae. The central-eastern Iberian Peninsula is the best represented area and *Pottiaceae* is the most important family of this collection. It has one type specimen. The main collectors are F. Puche, C. Gimeno, J. G. Segarra and J. J. Herrero-Borgoñon. Keeper: Felisa Puche. E-mail: puche@uv.es, phone: 34 96 3864633. Facultad de Ciencias Biológicas, Biología Vegetal-Botánica, c/ Dr. Moliner 50, E-46100 Burjassot, Valencia.
- **VIT** (Museo de Ciencias Naturales de Álava, Brioteca). Started in 1978, this is one of the most important Spanish collections, holding 26.000 sheets of bryophytes. The Basque region and surroundings, the Pyrenees, Continental Equatorial Guinea, and the Venezuelan Andes are the areas best represented. It has one type specimen. *Bauer Musci Europaei Exsiccatae* and Brioteca Hispánica. The material was mainly collected by P. Heras and M. Infante. Keeper: Patxi Heras. E-mail:

bazzania@arrakis.es, phone: 34 945 181924. Siervas de Jesús, 24, E- 01001 Vitoria.

PRIVATE COLLECTIONS AND OTHER INSTITUTIONS

- **BRIO-LU** (Universidad de Santiago de Compostela, Facultad de Veterinaria, pabellón II, planta baja, Campus de Lugo, E- 27002 Lugo). Started in 1993, it keeps 250 sheets of mosses and 50 sheets of hepatics from Extremadura and Galicia regions, collected by M. C. Viera. Keeper: María Carmen Viera. E-mail: bvcviera@correo.lugo.usc.es, phone: 34 982 252231 ext. 22435.
- **Herbario de Aragón** (Monasterio de Cogullada, Cogullada, Zaragoza). The library of this monastery lodges the historical herbarium of Francisco Loscos y Bernal (1823-1886), with 99 sheets of mosses and 20 sheets of hepatics. This collection has recently been revised by Casas *et al.* (1995).
- **Instituto Nacional de Bachillerato "Práxedes Mateo Sagasta"** (Glorieta del Doctor Zubía s/n, E-26001 Logroño). Started in 1870, it contains only a part of the herbarium of Ildefonso Zubía Icazuriaga (1819-1891) with 40 sheets (35 mosses and 5 hepatics) from La Rioja province. It has no keeper, but information is available from J. M. Abaigar (University of La Rioja), E-mail: javier.martinez@daa.unirioja.es. Available for loan. The remainder Zubia's collection is in MA and MAF (Martínez-Abaigar & Núñez-Olivera, 1996).
- **Javier Martínez-Abaigar** (Universidad de la Rioja, Avda. de la Paz 105, E-26004 Logroño). Started in 1985, it holds over 3.000 sheets of mosses and 1.000 sheets of hepatics, mostly from La Rioja (North Spain). The main collectors are J. Martínez-Abaigar, E. Nuñez-Olivera and A. García-Álvaro. E-mail: javier.martinez@daa.unirioja.es, phone: 34 941 299276. Available for loan.
- **Margarita Acón** (Departamento de Biología, Facultad de Ciencias, Universidad Autónoma de Madrid, E-28049 Madrid). A personal herbarium started in 1970, it contains over 800 sheets of Iberian bryophytes collected by the owner. Phone: 34 91 3978101. Not available for loan.
- **Rosario García Gómez** (Universidad de La Rioja, Avda. de la Paz 105, E-26004 Logroño). Started in 1980, it contains over 1.500 sheets of mosses and 500 sheets of hepatics, mainly from La Rioja (North Spain), collected by R. García Gómez and M. C. de Lemus. E-mail: rosario.garcia@daa.unirioja.es, phone: 34 941 299281. Available for loan.
- **Rosario Oliva Álvaro** (Avda. Conde de Vallellano 8, 14004 Córdoba). Initiated in 1975, this important

private herbarium is comprised of over 5.000 sheets of mosses (ROM collection) and 5.000 sheets of hepatics and anthocerotae (ROH collection), mainly collected by the owner in Andalucia and other parts of the Spanish Medi-terranean area. The best represented groups are *Ricciaceae*, *Pottiaceae* and epiphytic bryophytes. phone: 34 957 232510. Available for loan.

- **Seoane** (López Seoane Family, Casa Grande, Cabans, A Coruña) Victor López Seoane and Ragnar Hult' collection, which is comprised of 89 sheets of mosses and 31 sheets of hepatics. It has recently been revised by Carballal *et al.* (1991). It has no keeper, but information is available from M. C. Viera (Univ. Santiago, Lugo), E-mail: bvcviera@correo.lugo.usc.es. Not available for loan due to the precarious state of the material.
- **Vicente Mazimpaka** (Departamento de Biología, Facultad de Ciencias, Universidad Autónoma de Madrid, E-28049 Madrid). Started in 1986, it holds over 4.000 sheets of bryophytes, especially Medi-terranean epiphytic bryophytes. The main collectors are V. Mazimpaka, F. Lara, R. Garilleti and B. Albertos. Central Spain, the northwestern Iberian Peninsula, Morocco and Sicily are the best represented areas. A section of this herbarium is devoted to the *Orthotrichaceae* family, the best represented group. It has seven type specimens. E-mails: vicente.mazimpaka@uam.es, and francisco.lara@uam.es, phone: 34 91 3978104. Available for loan.

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WEB NEWS*

edited by Jose M. Iriondo

CARTOGRAPHIC LINKS FOR BOTANISTS

Interested in the chorology of plants? Resolved to map the location of the plant populations studied? Eager to know more about the latest cartographic techniques? Then, you may very well spend some time visiting *Cartographic Links for Botanists* compiled by Raino Lampinen at the Botanical Museum, Finnish Museum of Natural History at <http://www.helsinki.fi/kmus/cartogr.html>. This web page holds a very interesting collection of cartographic links neatly structured in 14 sections. Saved in your navigator's

favorites button, this web page can give you quick access to Internet sites with online plant distribution maps, and/or information on plant distribution mapping projects. In addition, you will get direct links to the fascinating world of digital mapping. Thus, sections on Geographical Information System (GIS) and Global Positioning System (GPS) are provided along with links to free digital datasets, interactive maps, map collections, mapping programs and national mapping agencies among others.

PROJECTS

COOPERATION IN GENUS *Gagea*

For over a decade I have been dealing with taxonomic issues on the genus *Gagea*. I have studied the wild taxa in Eastern Europe and Central and Northern Asia through extensive field work and have continued this research in a large living collection. Analysis of ontogenetical development and morphogenesis of over 150 species enabled me to detect an astonishing number of new, interesting and reliable characters which had not been recognised earlier. Many taxa from the studied areas turned out to be new. Now I cannot avoid accepting at least 250 species in the genus instead of the formerly believed 75-120.

My investigation has reached a stage where a

precise knowledge of the *Gagea* taxa from the Mediterranean area seems essential for forthcoming success. Therefore, I would like to get in contact with botanists interested in this plant group to exchange living plants or other material for scientific investigation. I am also interested in direct scientific cooperation and would be willing to collect materials of boreal taxa of other genera in exchange.

Please contact: Dr. Igor G. Levichev; Herbarium, Komarov Botanical Institute of the Russian Academy of Sciences. Prof. Popov Street, 2; 197376 Sankt-Petersburg, Russia. Tel: +7 812 2344512; Fax: +7 812 2348458; E-mail: levichev@herb.bin.ras.spb.ru

* In this section we will report on internet addresses with information relevant to botany in general, with a special emphasis on the Mediterranean Area.

IMAGE BANK OF FLORA OF THE IBERIAN PENINSULA

I am currently working on the creation of an image bank on the Flora of the Iberian Peninsula (Spain and Portugal) in which a great number of endemics, especially from southern Spain and Sierra Nevada are included. So far, a total of 1000 high-quality images (800x600, 300dpi resolution) have been compiled in one CD-ROM. I am interested in exchanging these

images for others of similar features or in offering them through some agreement among interested parties. Some examples of the image bank can be observed by visiting at <http://www.arrakis.es/~jahita/>. Please contact Dr. Francisco Pérez Raya by E-mail: frperez@platon.ugr.es.

Erodium FRUITS WANTED!

For the last few years, we have been studying the reproductive biology and other aspects of population biology of *Erodium paularense* Fern. Gonz. & Izco (subsection *Petraea*), an endangered taxa of Central Spain. One of the main causes of reproductive failure is the low formation of viable seeds. In order to compare these results with those of other related species, and to characterize seed formation in fruits, we are interested in studying mericarps of the subsection *Petraea* species. For each species, we would like to obtain samples from several populations each containing over 100 non-mature -but totally developed- fruits (schizocarps), preferably from different plants. We are especially interested in the following species (although fruits from other *Erodium* species are also welcome):

E. heteradenum (Pau & Font Quer) Guittonneau
E. cheilantifolium Boiss.
E. glandulosum (Cav.) Willd
E. foetidum (L. & Nath.) L'Hér.
E. rupestre (Pourret) Guittonneau
E. celtibericum Pau
E. crispum Lapeyr.
E. rodiei (Br.-Bl.) Poirion

Any collaboration will be greatly appreciated. If you wish to participate in this research studying these or related taxa, please contact: M. J. Albert, A. Escu-dero and J. M. Iriondo; Dpto. Biología Vegetal, E.U.I.T. Agrícola, Universidad Politécnica de Madrid; E-28040 Madrid, Spain. E-mail: iriondo@ccupm.upm.es.

MEETINGS

SPECIALISTS DISCUSS THE FUTURE OF BOTANICAL INFORMATION AT THE IBC

During the final symposium session of the XVI International Botanical Congress in St. Louis on Saturday, 7 August 1999, a group of botanists, librarians and archivists will speak about the critical need to preserve the record of botanical science, both past and present. The symposium is sponsored by the Council on Botanical and Horticultural Libraries (CBHL), and co-sponsored by the Historical Section of the Botanical Society of America.

Speakers will address such issues as the changing documentary record in botany; the increasing use of electronic information; the need for botanical documentation; the physical limitations of books, artwork, manuscripts, maps, computer files and other material found in botanical libraries and archives. They

will also discuss large-scale preservation strategies that have been recently pursued in several other scientific disciplines, so that botanists can assess the suitability of such strategies for the plant sciences. Following the symposium, the papers will be published, and a future meeting may be convened so that the matters raised can be given a fuller analysis in all botanical disciplines.

Delegates to the IBC are urged to consider attending these talks. Further information is available at <http://huntbot.andrew.cmu.edu/CBHL/symposium.html> or by contacting Malcolm Beasley <M.Beasley@nhm.ac.uk>, telephone +44 (0) 171 938 8928 (England), or Charlotte Tancin <ct0u@andrew.cmu.edu>, telephone 412-268-7301 (U.S.).

Malcolm Beasley (The Natural History Museum,

London) and Charlotte Tancin (Hunt Institute for

Botanical Documentation), symposium convenors.

INVITATION TO JOIN THE YEARLY MEETING OF GEP

Since 1995 the GEP (Group of European Pteridologists) has been increasing its contact with colleagues from eastern Europe. Thus, each year the group invites one pteridologist from one of these countries to join its meeting, and take part in its excursions. Either travelling expenses or board is paid. Applications should be sent to: Prof. R. Viane, co-ordinateur générale, Vakgroep Biologie, K. L. Ledeganckstraat 35, B-9000 GENT, BELGIQUE. Tel & Fax: + 32 9 2645057; E-mail: ronnie.viane@rug.ac.be

Depuis 1995 le GEP (Groupe Européen des Ptéridologues) a augmenté ses contacts avec des collègues des pays de l'Europe de l'Est. Le groupe a le plaisir d'inviter ainsi, chaque année, un(e) ptéridologue d'un de ces pays pour participer à ses réunions et à ses excursions. Les frais de voyage ou de logement (selon le cas) seront remboursés. Les candidatures doivent être envoyées au: Prof. R. Viane, co-ordinateur générale, Vakgroep Biologie, K. L. Ledeganckstraat 35, B-9000 GENT, BELGIQUE. Tel & Fax: + 32 9 2645057; E-mail: ronnie.viane@rug.ac.be

ANNOUNCEMENTS*

7 June – 30 July 1999

International Diploma in Herbarium Techniques – Kew

Contact: Education Section, Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AB, UK, Tel: (44) 181 332 5623/ 5638; Fax: (44) 181 332 5610; E-mail: Courses@rbgkew.org.uk; <http://www.rbgkew.org.uk/education/index.html>

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20-23 July 1999

BRACKEN 1999 - IVth International Bracken Conference

This conference aims to bring together researchers and environmental managers with interests in the full range of *Pteridium* biology ("brackenology"), including: Genetics, Taxonomy, Phyto-Chemistry, Physiology, Climate Issues, Bracken-derived risks to animal and human health, Global & Regional Distribution, Ecology, Remote Sensing and Bracken con-

trol measures, policies and management.

For additional information visit their website at: <http://www.ibgroup.demon.co.uk/Conference.html>, or contact: Liz Sheffield, Stopford Bldg, University of Manchester, Oxford Rd, Manchester M13 9PT, United Kingdom.

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26-30 July 1999

42nd Annual Symposium of the IAVS (International Association of Vegetation Science – Bilbao, Spain

The main topic of the symposium will be vegetation and climate.

Contact: IAVS99, Depto. de Biología Vegetal y Ecología (Botánica), UPV/EHU Ap. 644, E-48080 Bilbao, Spain. Tel: (34) 94 4647700 ext. 2394; Fax: (34) 94 4648500; E-mail: iavs99@lg.ehu.es

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1-7 August 1999

XVI International Botanical Congress – St. Louis, Missouri, U.S.A.

The XVI IBC Saint Louis is being organized by the whole North American botanical community, including botanical, mycological, and ecological societies, universities, botanical research institutions, and other sponsors.

The XVI International Botanical Congress will provide a forum for the presentation and discussion of the latest advances in plant sciences among botanists worldwide.

In the tradition of previous IBCs, the Scientific Program of the XVI IBC will consist of invited oral presentations in plenary lectures, keynote symposia and general symposia as well as contributed poster sessions. The Scientific Program will be subdivided into the following disciplinary areas:

* Coordinated by S. Pajarón and J.M. Iriondo. Please, send your announcements to S. Pajarón, Dpto. Biología Vegetal I Fac. Biología, Univ. Complutense, Ciudad Universitaria, E-28040 Madrid, Spain. E-mail: SPAJBOT@eucomax.sim.ucm.es

1. Botanical Diversity: Systematics and Evolution
2. Ecology, Environment, and Conservation
3. Structure, development, and cellular Biology
4. Genetics and Genomics
5. Physiology and Biochemistry
6. Human Uses of Plants: Economic Botany and Biotechnology

Any person interested in plant biology is invited to attend the XVI IBC. The full registration fee will allow attendees admittance to all scientific sessions and receptions. For more detailed information you can consult the XVI IBC Web site: <http://www.ibc99.org> or write to Secretary general, XVI IBC, c/o Missouri Botanical Garden, P. O. Box 299, St. Louis, MO 63166-0299 USA; Fax: (1) 314-577-9589; E-mail: ibc16@mobot.org

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7-10 August 1999

Cycad 99

An international conference of cycad enthusiasts, growers and scientists will be convened at Fairchild Tropical Garden in Miami, Florida, USA, August 7-10, 1999. Sponsors: Fairchild Tropical Garden, Palm Beach Palm and Cycad Society, and the Montgomery Botanical Center. Participants: all persons interested in the horticulture, conservation and science of cycads.

Information: For the latest conference information see: www.ftg.org/research/cycad99.html. To receive registration forms and abstract submission forms, please send: Name (please print); Mailing address; Phone; FAX; E-mail; By one of the following methods: a) Electronic mail: cycad99@ftg.org; b) by FAX (1-305-661-8953) addressed to: "Attention: Cycad99"; c) or by post: Cycad 99, Fairchild Tropical Garden, 10901 Old Cutler Rd., Miami, FL 33156, USA.

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9-11 August 1999

VIII International Aroid Conference

The VIII International Aroid Conference, sponsored by the Missouri Botanical Garden and the International Aroid society, will meet 9-11 August 1999 at Missouri Botanical Garden in St. Louis, Missouri. This is a three-day conference directly following the XVI International Botanical Congress and will provide a forum for the presentation and discussion of all aspects of aroid biology, ecology, taxonomy and horticulture. Over 50 presentations are scheduled and will include discussions of Araceae in large and small floristic regions, revisionary works of a variety of genera, glimpses of the best public and private Araceae collections, and descriptions of successful horticultural and breeding techniques currently in use. An unlimited number of posters sessions will also be made available to those who prefer to have their presentations on display for the duration of the conference.

For more information please consult the web page at: <http://www.mobot.org/IAS/iac99/> or contact: Secretary General, VIII International Aroid Conference, Missouri Botanical Garden, P.O. Box 299, St. Louis, MO 63166-0299 USA, e-mail: croat@mobot.org or bcsogriff@lehmann.mobot.org.

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19 August – 13 October 1999

International Diploma in Plant Conservation Techniques – Kew

Contact: Education Section, Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AB, UK, Tel: (44) 181 332 5623/ 5638; Fax: (44) 181 332 5610; E-mail: Courses@rbgkew.org.uk; <http://www.rbgkew.org.uk/education/index.html>

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22-25 August 1999

International Conifer Conference 1999

The 4th International conference follows the tradition of the Royal Horticultural Society in organizing conferences addressing the major developments in conifers. The conference will be held 22-25 August 1999, Wye College, Kent, England. This conference is designed to promote maximum interchange of information between all users of conifers. Keynote sessions will address major subject areas of current interest. The conference will have a worldwide geographical coverage from the arctic to the tropics.

Main scientific sponsors: Royal Botanic Garden, Edinburgh, Royal Botanic Gardens, Kew, The Royal Horticultural Society, Forestry Commissions and the International Dendrology Society. For more information contact: Miss Lisa von Schlippe, The Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AE. Tel.: 0181 332 5198, Fax.: 0181 332 5197, E-mail: L.von.schlippe@rbgkew.org.uk

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16-19 September 1999

V Conference on Plant Taxonomy

The V Conference on Plant Taxonomy will take place 16-19 September 1999 at the Arquivo Nacional da Torre do Tombo. It is located in the University of Lisbon Campus, which is easily reached by bus or subway.

Lisbon is a charming town and has renewed itself in the recent years. It offers good conditions for the welcoming of the Conference.

The Conference will comprise four non-concurrent sessions (half

day each) with invited lecturers and related poster sessions. The sessions will be: 1. Taxonomy and Conservation. 2. Methods in Bio-systematics. 3. Taxonomy in the Mediterranean Basin and in Macaronesia. 4. Tropical Taxonomy. Full-day concurrent excursions are planned for Sunday 19th.

More information can be found at the web page: <http://www.taxonomia.fc.ul.pt>, or contacting: Prof. Ana Isabel D. Correia, Museu, Laboratório e Jardim Botânico, R. da Escola Politécnica, 58, P-1294 Lisboa Codex, Portugal. Tel.: 351 1 392 1800; Fax.: 351 1 397 0882; E-mail: taxbot@fc.ul.pt

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20 -26 September 1999

2nd European Phycological Congress

From September 20-26, 1999 the Second European Phycological Congress will be held in Montecatini Terme, Italy. This meeting will provide a broad forum for phycologists (young and established) from all over Europe and overseas to present and to discuss many fascinating aspects of phycology, from molecular to organismic subjects, including terrestrial, freshwater and marine habitats. The Congress will take place at the "Palazzo dei Congressi" of Montecatini Terme.

There will be Plenary Lectures, Symposia and Posters presentations. Some of the subjects of the Symposia are: - Long-term variations in algal populations; -The Molecular Species concept; - Systematics and taxonomy of macroalgae; - Algae of the Mediterranean Sea; - Population genetics a tool for understanding algal diversity.

More information can be found at the web page: <http://www.incor.it/epc99/>, or contacting: Prof. Francesco Cinelli, Università di Pisa, dipartimento di

Scienze dell'Uomo e dell'Ambiente, via A. Volta 6, I-56100 Pisa, Italy; Fax.: +39050449694; E-mail: cinelli@discat.unipi.it

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21-25 September 1999

XIII Congress of European Mycologists - Alcalá de Henares, Spain.

The Scientific Programme will include an opening lecture, thirty invited lectures divided in the four sessions (conservation, systematics/taxonomy, environment, other topics) and a permanent poster exhibition.

Contact: Administrative Secretariat of the XIII CEM, Fundación General U.A. - Dpto. de Congresos, Pº de la Estación, 10, E-28807 Alcalá de Henares (Madrid), Spain. Telephone: +34 91 880 29 11, Fax: + 34 91 880 27 83, E-mail: congresos@fgua.es, <http://www.fgua.es/Congresos/programa.htm>

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22-25 September 1999

XVII Jornadas de Fitosociología "Valuation and Management of Natural Spaces"

The congress will take place at the University of Jaén 22-25 September 1999.

The human being has traditionally been immersed in the natural environment, exploiting and conserving the resources in a well-balanced way; today, the uncontrolled development is causing great damages in the natural ecosystems. Thus, it seems necessary the evaluation and management of plant communities to get a close relation between the currently opposed terms of conservation and development. It is obvious the necessity of improving the knowledge about composition, dynamics and operation of plant communities, in order to manage a natural space; this is the reason

why the vegetation sciences contributions provide a useful tool to carry out a right valuation and management.

More information can be found at: www.ujaen.es/info/congresos/fitosoc, or contacting: Secretary of the XVII Jornadas de Fitosociología, Departamento de Biología Animal, Vegetal y Ecología, Universidad de Jaén, E-23071 Jaén (Spain). Tel.: 34 953 212143; Fax.: 34 953 212141; E-mail: fitosoc@ujaen.es

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23-25 September 1999

First International Symposium on Protection of Natural Environment and Ehlami Karaçam (*Pinus nigra* L. ssp. *pallasiana* var. *pyramidata*) - Kütahya, Turkey

Symposium topics: Plant taxonomy and vegetation; Plant ecology and geography; Genetic variation and protection; Monumental trees; Natural environment and its protection; Plant physiology and anatomy.

Contact: Yrd. Doc. Dr. Hülya Ölçer, Dumlupınar Üniversitesi, Fen Edbiyat Fakültesi, Biyoloji Bölümü, Merkez Kampüsü, Kütahya, Turkey. Tel: 0542 267 5868. E-mail: holcer@ges.net.tr

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13-16 October 1999

5th International Conference on the Ecology of Invasive Alien Plants

Invasions of plant species have for a long time drawn the attention of botanists, agronomists and ecologists. Although this resulted in an ever-increasing body of scientific literature on "invasion biology" we still do not completely understand all aspects of this process and its impact on ecosystems. This Conference will be the continuation of a series of meetings that started in 1992 in

Loughborough, GB, and was continued in Kostelec, Czech Republic, in 1993, in Tempe, AZ, USA in 1995 and in Berlin, Germany, in October 1997. It will offer the chance to continue discussions of its predecessors and concentrate on issues identified as important during preceding meetings.

We propose the following topics: 1. What makes a plant invasive? 2. How can the effects (e.g. economic) of plant invasions be assessed? 3. Cost/effect analyses of control measures; 4. Early warning, risk analyses; 5. Habitats management and trophic interactions; 6. Policies; 7. Invasive Plants and National Parks, Nature Reserves, Protected Areas, Botanical Gardens, Historical Gardens, Parks in Town; 8. Invasive Plants in Mediterranean Agro-Ecosystems; 9. Modelling plant invasions, computer simulations, Geographical Information Systems and other mechanisms for compiling information: their uses and misuses.

The Conference will take place at the town of La Maddalena, in the Italian National Park of "Arcipelago di La Maddalena", in the North-East of Sardinia. The Archipelago consist of several islands of granitic rocks and La Maddalena is a pretty and smart little town on the main island of the Archipelago. It offers a range of different accommodation to suit all budgets.

For more information contact: Dr. Giuseppe Brundu, Dipartimento di Botanica ed Ecologia Vegetale, Università di Sassari, Via F. Muroni, 25, 07100 Sassari (Italy). Tel.: 39 0335 237315; Fax.: 39 079 233600; E-mail: gbrundu@tin.it, gbrundu@box1.tin.it

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20-21 November 1999

Société Française d'Orchidophilie. 30th anniversary. 14th Conference – Paris, France.

The topics of this conference include biology, biogeography, ecology, protection, preservation, recording of localities, cartography, taxonomy and culture techniques.

Contact: C. Blanchon, 3 Rue Rouselle, F-92800 Puteaux, France.

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19-22 December 1999

XIII Symposium of Cryptogamic Botany

The Symposium will be held 19-22 December 1999, at the Universidad Complutense de Madrid organised by both the Departments of Plant Biology of the Faculties of Biology and Pharmacy. The sessions will take place in the Faculty of Pharmacy.

The Symposium will provide a forum for presentation and discussion of the latest advances in the field of the traditionally named Cryptogamic Botany. Although, in the origin, these scientific meetings were national in character, it is intended to increasingly extend the participation to other European scientists, particularly Portuguese and from the whole Mediterranean Region. The floor is also open to provide the opportunity of an ordinary meeting of the Scientific Societies related with these botanical and mycological specialities.

Contact: Dr. Leopoldo G. Sancho, XIII Simposio de Botánica Criptogámica, Departamento de Biología Vegetal II, Facultad de Farmacia, Universidad Complutense, E-28040 Madrid (Spain). Tel.: 34 91 394 1769; Fax.: 34 91 394 1774; E-mail: criptoxiii@eucmax.sim.ucm.es

22-25 February 2000

XI Iberian Symposium for the Study of the Marine Benthos

The XI Iberian Symposium of the Marine Benthos will be held 22-25 February 2000 at the Universidad de Málaga. The main topic of the Symposium will be: "Biodiversity of the marine benthos, estate and perspectives". Scientific biological works related with the benthic environment, especially about the Atlantic Ocean or the Mediterranean Sea, could be presented either as oral or poster communications. The presentations will be divided in the following sections: 1. Anatomy and morphology, taxonomy, systematics and phylogeny; 2. Reproduction, larval development and cultures; 3. Population and community dynamics; 4. Organic matter flows and trophic organization; 5. Biogeography, management and conservation of marine systems; 6. Others.

Contact: Secretaría del XI Simposio Ibérico de Estudios de Bentos Marino. Departamento de Biología Animal, Facultad de Ciencias, Universidad de Málaga, Campus de Teatinos s/n, E-29071 Málaga (Spain). Tel.: 34 952 131857; Fax.: 34 952 132000; E-mail: mecloute@uma.es.

11-15 September 2000

Ninth International Conference on Mediterranean-Type Ecosystems (MEDECOS 2000) – Stellenbosch, South Africa

Contact: Dave Richardson, ISOMED Secretary, Institute for Plant Conservation, Botany Department, University of Cape Town, 7701 Rondebosch, South Africa; E-mail: medecos@botzoo.uct.ac.za; <http://www.uct.ac.za/depts/ipc/medecos.htm>

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Membership categories: **Ordinary** members receive the newsletters and the circulars, a free subscription to *Flora Mediterranea*, reduced rates on publications and on OPTIMA Meetings and all the benefits of being a full member. **Institutional** members, in addition to the above, also receive a free subscription to *Bocconea*. **Associate** members receive the newsletters and the circulars, but are not entitled to any other benefits. Associate membership will become effective immediately upon receipt of the signed application form. Ordinary or institutional membership will become effective upon receipt of the signed application form and payment of the membership fee for the current year.

Current membership rates: Ordinary (personal) members: SF 25.-; Life membership: SF 375.-; Institutional members: SF 90.-. Payments can be made in one of the following ways:

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- International postal money order to: OPTIMA, account No. 396 199 00 D, Union Bank of Switzerland, postal account No. 12-2048-5, CH-1211 Genève, Switzerland.
- International bank cheque drawn on a Swiss bank or Eurocheque sent to OPTIMA Secretariat in Madrid.

Please, make sure your name is clearly written on your payment. Advance payment for two or more years, at current membership rates, are accepted. Pro forma invoices (also for life membership) and receipts of payment will be sent upon request.

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Please sign and return to: OPTIMA-Secretary, Dr. José M. Iriondo, Dpto. Biología Vegetal, E.U.I.T. Agrícola, Universidad Politécnica, Ciudad Universitaria, E-28040 Madrid, SPAIN

NOTICES OF PUBLICATIONS*

edited by WERNER GREUTER

Dicotyledones

1. **A. A. MAASSOUMI – *Astragalus* in the Old World, check-list.** [*Islamic Republic of Iran, Ministry of Jihad-e-Sazandegi, Research Institute of Forests and Rangelands, Publication No. 1998-194.*] – Institute of Forests and Rangelands, [Tehran], 1998 (ISBN 964-473-034-8). [3] + 618 pages, tables, graphs, map; paper. Price: 16,000 Rials.

By numbers of included taxa, *Astragalus* is likely the largest non-apomictic genus of plants. The current CD-ROM version of *Index kewensis* lists 5626 entries under this generic heading, as compared to 5184 under *Senecio* and 4003 under *Euphorbia* (but over 7000 under *Rubus* and almost 11,000 under *Hieracium*). Discounting the supra- and infraspecific names there are 5206 binomials (including homonyms, "isonyms" and misapplication) listed under *Astragalus*.

Maassoumi's checklist has 2530 accepted species, with c. 900 synonyms. 121 of the species remain unassigned, the remainder being placed in 8 subgenera and 152 sections. An estimated 500 additional species (93 sections) are confined to the New World and are not treated here. Providing a first overview of the old-world *Astragalus* taxa, largely on the basis of floristic and (where available) monographic literature, was unquestionably a meritorious undertaking. The present survey is particularly welcome since *Astragalus* is the single group not yet covered by Heller & Heyn's *Conspectus florum orientalis*. In his introductory chapters, Maassoumi provides some numerical data on endemism and centres of diversity which, being the first to be based on a complete and updated inventory, are of considerable general interest.

This being said, one should also note that Maassoumi's inventory is in many respects pre-

liminary and of uneven reliability, depending on the state of available information for the various sections and areas. The nomenclatural treatment is rather disappointing, with e.g. some illegitimate junior homonyms being adopted with their legitimate replacement names listed in synonymy (examples being *Astragalus nitens* and *A. melanocarpus*) – which may be partly due to the neglect of relevant literature (with *Med-Checklist* conspicuously lacking from the bibliography).

The statistical basis of the numerical treatments (e.g. of the graphs showing species diversity distribution by major areas, for the larger sections) is ambiguous, principally because no distributional data are given for the individual species, but also because the numbering system adopted is inconsistent (recognised subspecies are numbered as if they were species; but the species name to which they are subordinated is sometimes numbered and sometimes not). Worse, the percent figures given in these graphs are in most cases widely erroneous (e.g., in *A.* sect. *Astragalus*, with its 46 recognised species [or 50 numbered taxa], the percents are based on a total of 71 species), but occasionally correct (e.g. in *A.* sect. *Hemiphaca* with its 34 species). W.G.

2. **Christoph OBERPRIELER – The systematics of *Anthemis* L. (*Compositae*, *Anthemideae*) in W and C North Africa.** [*Bocconea*, 9.] – Herbarium Mediterraneum Panormitanum, Palermo, 1998 (ISBN 88-7915-024-3). 328 pages, black-and-white illustrations, paper. Price: Lit 70,000.

Oberprieler's PhD thesis deals with the *Anthemis* taxa of the Maghreb countries, which is that part of the total area of this genus in which it had been very inadequately studied so far. The present revision fills this gap. It is based not only on material from all major herbaria but also on

* Please send all items for review directly to the editor of this column: Prof. W. Greuter, Botanischer Garten & Botanisches Museum Berlin-Dahlem, Königin-Luise-Str. 6-8, D-14191 Berlin.

extensive field work in Morocco and Tunisia (Algeria being presently off limits, unfortunately, for botanical exploration) and on cultivated progeny from the newly collected material.

North Africa was known to host some very difficult and ill understood *Anthemis* complexes. To study them, Oberprieler has used an impressive range of methods of investigation, from classical morphology through fruit anatomy, palynology and karyology to molecular genetics (RAPDs). Morphometric studies with statistical (principal component) analysis provided a supplementary means to assess the taxonomic groups and their classification. However, the adopted treatment does not slavishly follow the numbers and graphs resulting from numerical analysis, but take into account considerations of phytogeography and chorogenesis as well as qualitative features not readily accessible to statistical interpretation.

As a result, the delimitation, arrangement and interpretation of taxa that is being proposed looks convincing and well founded, even though Oberprieler does not deny the possibility of divergent interpretation of the observed facts.

There are 25 recognised *Anthemis* species growing in the area, one of which is described as new to science, same as two subspecies. Several new combinations and rank transfers are proposed, mostly at subspecies rank. There is a good identification key in two languages (English and French), and the distribution of all taxa is shown by means of dot maps. The illustration is particularly noteworthy, not only by its abundance and variety but by its high quality standard. It demonstrates the author's ability not only in handling laboratory and photographic techniques but also as a botanical artist of high standing.

Bocconeia may take justified pride in hosting this choice example of a modern and skilful monographic treatment, authored by a promising representative of the uprising new generation of plant taxonomists.

W.G.

Floras

3. **Santiago CASTROVIEJO (gen. ed.), Félix MUÑOZ GARMENDIA & Carmen NAVARRO (vol. ed.) – *Flora iberica*.** Plantas vasculares de la Península Ibérica e Islas Baleares. Vol. VI, *Rosaceae*. – Real Jardín Botánico,

C.S.I.C., Madrid, 1998 (ISBN 84-00-07777-6). XLVII + 592, map and drawings, cloth with dust-cover.

Publication of the *Rosaceae* volume of *Flora iberica* took somewhat longer than had been anticipated (see the last review of this Flora, in OPTIMA Newsletter 32: (5). 1997) – no wonder in view of the notorious difficulty of many of the genera involved. Now when the book is at hand, one can readily ascertain that the excess time was well spent. Volume 6 is a worthy member of this most remarkable basic flora for the Iberian Peninsula and Balearic Islands. Volume 7 on the legume family, which will fill the temporary gap in numbering that was due to the "premature" publication of vol. 8, may now be expected any time.

Hybridisation combined with apomixis (as in *Rubus* and *Alchemilla*, in particular) or other kinds of anomalous reproductive behaviour (as in *Rosa*) is the main source of taxonomic difficulty in this family and has led to a boundless proliferation of names for taxa that hardly anyone can distinguish and which few will want to recognise. The problems have been tackled differently for each of the above three genera. For *Alchemilla*, Froehner has adhered to the fashionable pulverisation trend by recognising no less than 83 species, several of which were described as new during the elaboration of his treatment. To his credit, one must admit that no sensible recipe for a more synthetic approach has so far emerged. In *Rosa*, Silvestre and Montserrat have given full treatment to 19 broadly defined and widely distributed traditional species, describing the observed variation under each of them and mentioning the cases of presumed hybridisation (rather confusingly, the hybrid formulae are again listed at the end of the generic treatment in a completely redundant enumeration). Under the two most polymorphic main species – *Rosa canina* and *R. dumalis* – a number of "microspecies" (7 in each case) have been tentatively recognised. Finally, Monasterio-Huelin, who authored the *Rubus* treatment, has followed the pragmatic approach proposed by Heinrich Weber in denying recognition to locally arising apomicts, many of which are known to be unstable or otherwise ephemeral. For the 26 fully treated species, the criterion of admission was occurrence in an area of at least 50 km², the binomials referring to local apomicts

being listed under the corresponding section or series.

In the other genera treated in the present volume, including the second largest (*Potentilla* with its 30 accepted species) the taxonomic problems are of the same order of magnitude as in other large families of flowering plants. The very synthetic approach in genus delimitation in the *Amygdaloideae* (*Prunoideae*) may perhaps be worth mentioning, where the 10 species of the single genus *Prunus* have, by authors of the past, been assigned to no less than 8 different genera (*Amygdalus*, *Armeniaca*, *Cerasus*, *Laurocerasus*, *Microcerasus*, *Padus*, *Persica*, and *Prunus*).

It is particularly pleasing to note that *Flora iberica* and its authors are now fully espousing the cause of nomenclatural stability. One need no longer fear to find reckless disturbing name changes as in earlier volumes (some of which were subsequently undone by acts of conservation or rejection of names, as with *Xolantha* and *Quercus humilis*). On the contrary, every effort has been made to avoid whatever change was avoidable – a choice example being the maintenance of the name *Sanguisorba verrucosa* that appeared to be threatened by the discovery of new bibliographic evidence (see Muñoz Garmendia in *Anales Jard. Bot. Madrid* 56: 174-176 for further detail). Also, several new conservation or rejection proposals originated from the context of the treatments in the present volume.

No less pleasing is it to note the introductory announcement, in this volume, that adequate funding of the *Flora iberica* project has been granted for the five-year period 1998-2002. No botanist will be surprised to be told that writing a good Flora costs good money – yet many grant-giving agencies are still reluctant to acknowledge this – or else, they may be unwilling to recognise the importance of Flora writing. Obviously Spain is a commendable exception to the general rule, in this respect! W.G.

4. Loutfy BOULOS – Flora of Egypt. Volume one, Azollaceae-Oxalidaceae. – Al Hadara, Cairo, 1999 (ISBN 977-5429-14-5). xv + 419 pages, 67 plates of drawings + 24 plates of colour photographs, map, hard cover with dust jacket. W.G.

Some time ago, in this same column (*OPTIMA Newsletter* 30: (24). 1995; 31:

(11-12). 1997), I had the privilege to present two new checklists for the flora of Egypt published independently in the same year (1995) by two obviously competing scientists: Nabil El-Hadidi and Loutfy Boulos. I then volunteered the advice that "The authors of both books ought better join efforts and smooth out the differences to produce the definitive floristic inventory (or even a Flora) of their country." The advice was well meant but perhaps naive.

El Hadidi in 1980 had undertaken the completion of Täckholm & Drar's monumental *Flora of Egypt*, stuck after the 4th volume, by the fascicle-wise publication of family treatments, under the former title, as *Taeckholmia, Additional series* (see *OPTIMA Newsletter* 12/13: 42. 1982). Progress to date has been disappointingly slow. In his 1995 *Materials* referred to above, El Hadidi also announced a new, completely revised edition of Täckholm's *Student Flora of Egypt* of 1974 – but nothing has happened since.

Now there we are: two national Floras of Egypt are in progress, under identical titles, of which the newer one chose to completely ignore the earlier, at least in so far as the *Taeckholmia* treatments are concerned! This is a rather saddening and unsatisfactory context, which to some extent mitigates the joy one feels when a promising new Flora appears in print.

Nevertheless there are good reasons to welcome this new book as a most promising step toward a really good and user-friendly new Egyptian Flora. It offers concise, modern and reliable information whose value is greatly enhanced by the excellent line drawings (by various, mainly Kew-based artists) and brilliant colour photographs, representing a majority (more than ¾) of the 717 species treated. This first of three planned volumes covers the Pteridophytes, Gymnosperms, and the first half of the dicots (up to the *Oxalidaceae*, in a sequence roughly following the Englerian system). The next volume will complete the dicot treatment, and the last is to comprise the monocots. If one combines the two checklists of 1995 (including an erratum sheet to the earlier of them) will count exactly 2122 species of vascular plants growing wild or naturalised in Egypt, which means that the species now treated do indeed sum up to just over one third of the total.

The book has been printed and published in Egypt, but the quality of paper, print and binding

is above average according to European standards. Our main wish for the volumes yet to come (apart from a suitable complement to the bibliography to include the El Hadidi Flora) is that reference to the figures be added under the corresponding taxa. Their present lack is the single irritating aspect from a user's point of view. Otherwise, just let us cheer and await, impatiently perhaps, the volumes yet to come.

W.G.

5. M. ASSADI, M. KHATAMSAZ, V. MOZAFFARIAN & A. A. MAASSOUMI (ed.) – **Flora of Iran**. No. 19-22: *Pinaceae*, *Taxaceae*, *Cupressaceae* and *Ephedraceae*, by M. ASSADI; No. 23: *Grossulariaceae*, by M. ASSADI; No. 24: *Solanaceae*, by M. KHATAMSAZ.. – Research Institute of Forests and Rangelands, [Tehran], 1998. 58 + [2], 13 + [2], 112 + [4] pages, figures & maps, paper.

There is no need to introduce *Flora of Iran* once again, as it has been presented repeatedly and in some detail in earlier issues (see OPTIMA Newsletter 25-29: (31-32). 1991; 30: (15). 1996; 31: (8). 1997; 32: (10). 1997). Nothing much has changed with respect to the obvious qualities of the work, which include its regular progress and the good quality of its illustrations, except that one important and most welcome change has happened. Starting with family No. 20 (*Taxaceae*), dot maps are being prepared for all wild species to show their Iranian distribution.

As for previous instalments, the Flora is based on much original work and, obviously, a substantial amount of new material, so that it substantially updates *Flora iranica*, Rechinger's classic for the region. It is of note that most of the new treatments concern the early families of *Flora iranica* (e.g., *Ephedraceae* were published as its third instalment, at a time when no descriptions were yet provided except for the keys).

The progress of knowledge is reflected on one hand by new (usually wider) species circumscriptions, due to the breaking down of former apparent distinctions as more plentiful material becomes available; and on the other hand by newly discovered and described species. This time, floristic additions of note include *Juniperus oblonga*, *Ephedra distachya*, *Solanum dulcamara*, and *Lycium makranicum*. Three species (*Ribes khorasanicum*, *Ephedra laristanica*, and

Hyoscyamus bornmuelleri) were described as new during the preparation of the respective accounts (only one new name is, however, validated in the Flora itself: *Hyoscyamus* subg. *Parahyoscyamus*). In summary, the additions neatly balance the "losses" through synonymisation. W.G.

Flower books

6. Monique ASTIÉ & Germaine DEBRAUX – **Etonnantes plantes sauvages**. – [Privately published?], printed in F-44490 Le Croisic, 1999 (ISBN 2-9513780-??-?). XIII + 261 pages, 3 plates of drawings + 110 colour plates, cloth with dust jacket. Price: FFr 350.

"Surprising wildflowers" – a promising title indeed. Two elderly ladies, both nature-lovers, both professional botanists at the end of a university career, one a gifted painter, joining effort in producing a flower-book for the layman: one expects a work full of enthusiasm, learning, hidden treasures; and one is thoroughly disappointed when looking at the result.

The book, apparently privately published (but the bibliographic details are scant and the ISBN number, inaccurate), is well printed on heavy, glossy luxury paper, and adequately bound, but as to contents it does not match modern standards of reliability and information content. In his gentle preface, Gérard Aymonin draws a comparison with last-century book awards to successful pupils, with tales on flowers of the various seasons. But then, even the slightly romantic touch of such flower tales is missing here. The text is dry and mostly descriptive, although the descriptions themselves are seldom characteristic for the plant described.

The plants: a random choice of a good hundred (112 to be precise) mostly trivial French lowland plants from various habitats, painted with love but little skill and taste; faithful in colour and matching the habit but poor in characteristic detail (convince yourself by looking at the plate of *Silene gallica*, where the calyx, characteristically glandular-villous, is painted as if it were glabrous). These plants are arranged in 12 groups representing various habitat types, but these habitats are poorly defined, show wide overlap, and are often uncharacteristic of the associ-

ated species so that the didactic or practical purpose of the grouping remains obscure.

How then is botanical accuracy, where one would expect perfection from two experienced academic teachers and professionals? The very first plant bears an obsolete, illegitimate name (a junior homonym): *Silene alba*. Others are placed in genera no longer upheld by science, such as *Cheiranthus*. Some identifications are uninformative, such as *Rubus fruticosus*, and one at least is blatantly wrong (a perhaps somewhat scrappy but unmistakable plant of *Lathyrus montanus* being misnamed *L. nigricans*). In short, the scientific standard is, shall we say, problematic.

One tends to be lenient when art and science are being combined. Yet, frankly, little would be lost had this book never been produced. W.G.

7. **Wolfgang LANGER & Herbert SAUERBIER – Endemische Pflanzen der Alpen und angrenzender Gebiete.** – Dr. K. Thomae GmbH, D-88397 Biberach an der Riss, s.d. (pref. dated Apr 1996). 160 pages, colour maps, graphs and photographs, laminated cover. Price: DM 49.80.

This booklet presents itself as a promotional item produced by a pharmaceutical firm, but, fortunately, it is also commercially available. In fact, it is quite a gem! The authors are two pharmacists and nature lovers, both fearless mountaineers and top-level nature photographers, who have undertaken to find and portray as many of the rare endemic species and subspecies of the Alpine flora as they could possibly manage.

There are 121 such taxa fully treated here, each shown in one to three colour photographs that meet the highest standards of aesthetics, neatness, and colour faithfulness – for which tribute must be paid to the printers as well. For each, there is a fairly complete and carefully worded description, an indication of the total known distribution, and a small map to illustrate the area (the latter not always fully congruent with the corresponding text). Some of the plants here dealt with have rarely if ever been shown in flower books before. Also, a few of them are not members of the Alpine flora but endemics of lowland territories in Germany.

The book starts with some general chapters on geology, palaeogeography, evolution and the

like, that provide pleasant reading and are based on a fair knowledge of recent literature. The authors obviously have higher ambitions than mere flower photography. Yet it is the latter domain in which they really excel and in which they can take justified pride. W.G.

8. **Walter STRASSER – Plants of the Peloponnese, southern part of Greece.** – Gantner, Ruggell FL, [1999] (ISBN 3-904144-11-1). – [2] + 350 pages, figures, laminated cover. Price: DM 40.

Strasser's field vademecum for Peloponnese flower-hunters (see OPTIMA Newsletter 32: (12). 1997) is now available in an English language edition, somewhat enlarged with respect to its German predecessor. It maintains its essential qualities mentioned previously: the simple but faithful drawings which, having been made an experienced field botanist, are a most useful help for identification, and its remarkably full if not 100 % complete coverage. The price, too, remains unchanged.

The numbered, fully illustrated species have increased by 124, and several pages of drawings have thus been added. Most additions concern the first five among the ten artificial groupings in which the plants are arranged, as these were the less completely treated ones. Thus, species numbers increase by 10 % for the pteridophytes, 14 % for the orchids, and between 17 and 22 % for the grasses and sedges, the trees and shrubs, and the inconspicuously-flowered herbs. Another addition is a small illustrated glossary, whereas conversely two of the identification keys for critical groups (brome-grasses and medicks) were omitted.

This booklet will no doubt be appreciated by many as a light-weight, practical companion in the field, not only just in the Peloponnese but in other, neighbouring areas as well. W.G.

Floristic inventories and checklists

9. **Rolf WISSKIRCHEN & Henning HAEUPLER – Standardliste der Farn- und Blütenpflanzen Deutschlands mit Chromosomenatlas von Focke ALBERS.** [Henning HAEUPLER (ed.), Die Farn- und Blütenpflanzen Deutschlands, 1.] – Ulmer, Stuttgart, 1998

(ISBN 3-8001-3360-1). 765 pages, 2 figures, cloth with dust jacket. Price: DM 148.

This new, critical synonymic checklist concerns the wild and naturalised species and subspecies (including nothotaxa) of vascular plants found growing in Germany. It is an impressive work that builds upon much original research into the nomenclature and taxonomy of the Central European flora, and as such it will be noted and used by many, well beyond the political boundaries of the Federal Republic of Germany.

Among the salient aspects of the Checklist are its extensive, critical synonymies; its effort to list types (or type localities) for all names, including synonyms, for which they have so far been designated; and the presence of special notes highlighting – by the use of colour print – problems and uncertainties relating to the taxonomic status and nomenclatural treatment of a great many taxa. Such notes, which may run to several pages, often reflect, and may in some cases foreshadow, disagreement and controversy among contemporary authors. They are due to the more than three dozen specialists who are authoring the individual generic treatments.

The work undertakes to follow modern standards and rules of plant nomenclature, a rather neglected speciality so far, in Germany as elsewhere in Europe. This fact gains added importance if one considers that the checklist was commissioned and funded by the German Ministry for the Environment through the Federal Office for Nature Conservancy, meaning that the importance of a correct nomenclature as a basis for research and information transfer has now been recognised by policy maker at the highest levels. The work endeavours, with some success, to use the right nomenclatural concepts and adequate terminology, although it characteristically fails in this attempt when it misuses the term "valid" for in the sense of "correct" while erroneously redefining "correct" in the sense of "senior legitimate" – perhaps an additional argument for getting rid of these terms, now widely ambiguous through misuse, in the next edition of the botanical Code of Nomenclature.

The present volume also includes, as an appendix, a "chromosome atlas" for the German flora, edited by Focke Albers. It takes Tischler's 1950 list of chromosome numbers for the Central European flora as a starting point, listing all chromosome counts based on German plant

material that were published subsequently, with citation of their source, as well as many yet unpublished ones.

The checklist is the first part of a planned trilogy, to be followed by an iconographic atlas and an update of Haeupler & Schönfelder's chorological atlas of the vascular plants of Germany, first published in 1988. When this three-volume compendium on the vascular flora of Germany will be complete, the naturalists of that country will dispose of a unique tool for their research, one that can stand as a model for the whole of Europe and the Mediterranean Area.

W.G.

10. Fabio CONTI – An annotated checklist of the flora of the Abruzzo. [*Boccone*, 10.] – Herbarium Mediterraneum Panormitanum, Palermo, "1998" [publ. in March 1999] (ISBN 88-7915-010-3). 275 pages, 1 map, paper.

The author of a preliminary flora of the Abruzzo National Park published in 1995 (see OPTIMA Newsletter 30: (22). 1996) now presents us with a floristic inventory of the whole Abruzzo, an Italian Region extending from the watershed of the Apennines to the central part of the peninsular Adriatic coast. This turns out to be one of the floristically richest among the Italian regions, which with its 3206 listed taxa (species and subspecies) just exceeds Latium (3185 taxa). No wonder, as the Abruzzo includes the highest peaks of the Apennine range (the Gran Sasso d'Italia culminates at 2912 m, just short of the highest Balkan peaks: Mt Rila with 2925 m and Mt Olympus with 2917 m) as well as Europe's southernmost glacier.

Each taxon is attributed to a habitat category and to one of four frequency classes: very common, common, uncommon, rare. For the rare taxa, fairly detailed distributional data and literature source references are provided. There are special lists of endemic (separate for Central Apennines, Apennines, and Italy) and regionally extinct taxa (no less than three dozen). Three new combinations are validated.

This is doubtless a useful list, which suffers to a perhaps minor degree from rather careless editing. Apart from the awkward spelling mistake in the very title, may I mention the mislead-

ing caption to Fig. 1: the map shown is of the whole Region, not of the National Park only (which is but a tiny portion of the Region and extends beyond its boundaries). W.G.

11. Darinka TRPIN & Branko VRES – Register flore Slovenije. Praprotnice in cvetnice. Register of the flora of Slovenia. Ferns and vascular plants. [*Zbirka ZRC, 7*] – Znanstvenoraziskovalni Center SAZU, Ljubljana, 1995 (ISBN 961-90125-6-9). 143 pages, 8 extra plates with 96 colour photographs, electronic text file; paper + diskette.

The present, new inventory of the vascular plants of Slovenia achieves at least three novel goals: it updates the country's current excursion flora, the 1984 edition of Martincic & Susnik's *Mala flora Slovenije*; it provides a full set of common Slovenian names, also indexed separately; and it proposes a series of 7(-10)-element alpha-numerical, mnemonic codes to designate each taxon (as well as the principal synonyms), in addition to the sequential numbering. Whether the latter feature will be found to be useful in a general way remains to be seen, as the problem it addresses (limited memory space of computer) is rapidly losing importance.

The number of recognised taxa (species, hybrids, subspecies, varieties, formae) is 3216, including a few extinct taxa and doubtful (but not plainly erroneous) records. For the latter, special cases as well as for all additions, literature references are provided – a particularly welcome and useful feature of the list. Species that are found only in the cultivated state, as well as species aggregates and main synonyms, are mentioned and coded but not numbered. Some further synonyms are mentioned under the accepted taxa but are neither cross-referenced nor indexed. A further, perhaps not very important drawback is that the species contents of the recognised aggregates are not apparent from the list but can only be found by reference to the *Mala flora*.

The list is also provided in the form of an electronic database, supposedly running under a Windows surface, on a 3½' diskette. When trying to install it on one's own PC [in which attempt I shamefully failed], one might profit from the services of someone familiar with the Slovenian language, as all the installation commands and help text files are so written. Most com-

mendably, though, the introductory and explanatory text in the publication itself is fully bilingual, Slovenian and English.

The concluding iconographical sample of Slovenia's characteristic plants noticeably includes a number of taxa that are rarely if ever thus portrayed, due to their unobtrusiveness and apparent lack of appeal – to mention but a small weedy annual such as *Hainardia cylindrica* and, tiniest of all, *Wolffia arrhiza*. W.G.

Excursions

12. Ina DINTER – Algarve. Skriptum zur botanischen Exkursion vom 13.-24. März 1999. – Privately assembled/duplicated, D-74348 Lauffen, 1999. 66 numbered sheets, black-and-white illustrations, plastic front + paper back cover sheets.

13. Ina DINTER – Toskana. Botanische Studienwanderreise vom 15.-26. Juni 1997. – Privately assembled/duplicated, D-74348 Lauffen, 1997. 53 numbered sheets, black-and-white illustrations, paper, plastic front cover sheet.

14. Ina DINTER – Botanische Studienwanderreise. Abruzzen. Bergwelt im Herzen Italiens. Landschaften – Flora – Kultur. Botanische Studienwanderreise, 15 Tage, 25.07.-08.08.1996 [post-excursion elaboration]. [*Natur-Exkursionen*, K 9609]. – Privately assembled/duplicated, D-74348 Lauffen, 1997. 84 sheets, black-and-white illustrations, plastic front + paper back cover sheets.

15. Ina DINTER – Malta / Gozo. Naturkundliche Studienwanderreise 15.2.-01.03.1998. – Privately assembled/duplicated, D-74348 Lauffen, 1998. 43 sheets, black-and-white illustrations, plastic front + paper back cover sheets.

16. Ina DINTER – Malta. Die Erlebnisinsel. Im Herzen des Mittelmeeres [post-excursion elaboration]. – Privately assembled/duplicated, D-74348 Lauffen, 1998. 47 sheets, black-and-white illustrations, plastic front + paper back cover sheets.

17. Ina DINTER – Korfu Griechenland [16. bis 28. Mai 1998, post-excursion elaboration]. – Privately assembled/duplicated, D-74348 Lauffen, 1998. 90 numbered sheets, black-and-white illustrations, paper, plastic front cover sheet.

18. Ina DINTER – Karpathos. Skriptum zur botanischen Exkursion vom 2.-15. Mai 1998. – Privately assembled/duplicated, D-74348 Lauffen, [1998]. 53 numbered sheets, black-and-white illustrations, paper, plastic front cover sheet.

Mrs Dinter's second "business" (in her "spare time", she is supposed to run her pharmacy) is obviously prospering. Her guided botanical hiking tours to various Mediterranean areas, arguably the best prepared and most expertly led in the German language domain, are numerous, varied, and popular. One can but admire the lady's un-failing energy in organising her trips, as they demand thorough preparation in terms of reconnoitring, collecting and identifying, resulting in the compilation of attractive texts and illustrations for her tour companion pamphlets – after which, each time the journey has been successfully completed, she will [for the 1995 and later trips] sit down and reshape those same pamphlets into accounts based on what was observed and experienced on the actual trip.

These pamphlets (tour-companion [C] version and subsequent "elaboration" [E] alike) are naturally no more than "grey literature", being produced for the personal use of the participants, and not commercially available (as they freely reproduce illustrations and often texts published elsewhere by others, any commercial distribution would obviously infringe copyright regulations). Yet, beyond their obvious interest as quick-and-easy introductions into the natural history of the study areas and guides to the relevant literature, they are of undeniable scientific value as primary sources of documented floristic information. For this reason, I have tried to put them on record in the frame of this column, to the whole extent to which they have been made available to me (see OPTIMA Newsletter 30: (25-26). 1996; 31: (12-13) and 32: (13-14). 1997; 33: (6-7). 1998).

This may be a good time to give a quick survey of the excursions for which documents have come to my knowledge, with mention, for

1995 and later years, of whether they are of the [C] or [E] type. With the single exception of the [C] version of the 1997 Corfu trip, all relevant documents have been or are being presented in this column. The item number of the new ones are mentioned in parentheses.

1993: Samos, April; and Madeira, June;
1994: Sicily, April; and Samos, May;
1995: Lesvos & Hios April [E]; and Abruzzo, July [E];
1996: N. Cyprus, March [C & E]; and Abruzzo, July-August [C & E(14)];
1997: N. Cyprus, March [E]; Corfu, April [C & E]; and Tuscany, June [C (13)];
1998: Malta, February [C (15) & E (16)]; Karpathos, early May [C? (18)]; and Corfu, late May [E (17)];
1999: Algarve, March [C (12)].

Of the new items presented here, two (Nos. 14 and 17) are closely related to some that have been discussed earlier and include much the same general texts and illustrations. In both, however, the species lists (those for the individual localities and the cumulative list at the end) have been completely re-written and differ substantially from the earlier versions. One welcome innovation, which is also found in most of the following items, is the addition of herbarium voucher numbers in the cumulative lists. The Abruzzo excursion report (see OPTIMNA Newsletter 31: (12) for the [C] version) includes identifications revised by F. Lucchese (Roma). The 1997 report for Corfu parallels that for 1996 (see OPTIMNA Newsletter 32: (13-14)) except for the omission of the bird lists and limerick section; in compensation, it cumulates herbarium specimen citations for the excursions of three consecutive years.

No less than four new trips were planned and carried out since 1997, to the Algarve in S. Portugal, Tuscany in Central Italy, the islands of Malta and Gozo, as well as Karpathos in the S. Aegean Sea. The Algarve document (12) is exceptional in not including a cumulative species list (but it does enumerate the herbarium specimens collected on the preparatory tour). It offers little in terms of geographical and cultural information but it has a substantial appendix on economically important plants and their uses, and includes a particularly rich selection of plant drawings, reproduced from Mabberley & Placito's guide book to Algarve's botany of 1993, and from the *Flora de Andalucía Occi-*

dental of Valdés & al. The Tuscany excursion (13) is in actual fact limited to the N.W. part of the region, mainly but not exclusively to the Apuan Alps, with some cultural escapades to Lucca and Pistoia but without deigning Florence, Pisa and Siena of as much as a look. The botanical illustrations, here, are mainly from Fiori's *Iconografia* (magnified and thus with inaccurate scale indications), but also partly from papers by Bechi & Garbari and Bechi & al. The scale problem with Fiori's drawings is also apparent in the Malta tour guide and "elaboration" (15 & 16), which are additionally embellished by some full-page drawings from Raimondo's study of Mt Pellegrino near Palermo. The trip included a full-day excursion to the neighbouring island of Gozo.

The Karpathos tour companion, which concerns an area with which I am thoroughly familiar, unfortunately lacks a cumulative species list (an item hopefully to be provided together with the [E] version). The programme starts in the northern part of the island, using the harbour of Diafani as an excursion base, from where an optional one-day trip to the neighbouring island of Saria was being envisaged. From the sixth day onward the group then hiked through the central and southern parts of the island. The pamphlet includes general texts taken from Hiller & Kalt-eisen's 1988 account of the island's orchids. The species lists are still rather disappointingly incomplete, lacking many of the endemic or otherwise peculiar taxa (e.g., *Silene ammophila* subsp. *karpatae*, *S. insularis*, *S. discolor*), so that one looks forward with some expectation to the progress hopefully to be embodied in the [E] version.

W.G.

19. Rita EISENBLÄTTER & Eckhard WILLING – Kurzbericht über unsere Sammelreisen 1998 nach S- und NW-Griechenland für die Flora hellenica. Teil 1: Fundorte. – Privately duplicated, Berlin, 1998. [34] un-paged sheets, 1 colour photograph, stapled.

Unknown to many, Eckhard Willing is certainly the most assiduous and productive collector of Greek plants of all times. His exploration of the Greek flora, pastime of most of his holidays of the past 25 years – often in the company of his first wife Barbara, more recently with Rita Eisenblätter –, saw him converted twice. The

first time, from a non-collecting plant lover entirely relying on photographic documentation of his finds he became a skilled and successful collector of herbarium specimens, who keeps perfecting the drying technique by infrared bulbs first described by Heinrich Weber in 1977 (see Willing & Willing in *Phyton* (Horn) 32: 119-128. 1992). This happened in the early 1980s. In 1988, his second conversion took place, from a pure orchid hunter to the general field botanist he is now. From 1988 to the end of 1998 the numbering of his collections, which he keeps offering graciously to the Berlin-Dahlem Museum, rose from about 300 to the present 72.203 (duplicate specimens, which receive additional lower-case lettering, not being shown in these figures)!

The present, 1998 report on his collecting activities is the first in this format of which we came to know. It is an impressive document, demonstrating by crude figures and just a few comments the efficiency and amount of the authors' collecting. In exactly 40 days of field work performed in the Greek provinces of Arcadia and Laconia (in April), Florina, Ioannina, Kastoria, and Kozani (in July), 11.121 plant specimens were collected: 278 per day on average. This was achieved with just five plant presses, whose contents used to be dry for over 95 % after 24 hours. From first-hand knowledge, I can add that the Willing specimens are among the most carefully and beautifully prepared of their kind.

As to efficiency, it is enhanced by the procedure followed by the authors when collecting, which is based on a chorological approach. Within each prospective mapping unit (10 × 10 km UTM grid mesh) the authors will endeavour as complete a floristic inventory as possible, starting by collecting all species present at their first locality, but only the additional, not yet documented ones at each subsequent stop. In recent years, use of a global positioning system (GPS) has significantly improved the precision of locality data.

Implicit in the title, although not elsewhere spelled out, is the authors' intent of publishing a second part of their report, presumably to hold the list of specimen identifications. I will be pleased to come back on this when it becomes available.

W.G.

20. Heinz KALHEBER – Seriphos. 30. August - 3. September 1997. – Privately duplicated, Runkel, 1998. [10] unpaginated sheets, 1 map, stapled.

21. Heinz KALHEBER – Siphnos. 3.-10. September 1997 und 3.-14. April 1998. – Privately duplicated, Runkel, 1998. [18] unpaginated sheets, 1 map, stapled.

These two inventory lists, dated September and October 1998, respectively, are artless computer printouts that may be one-off products just as well as duplicated "publications": hard to tell the difference, except that the collecting routes, on the island maps, were evidently colour-marked by hand. At any rate, the lists are source documents of floristic data for two Greek islands of the Cyclades, in the Aegean Sea, and as such they should not go unnoticed. They include precise locality data and mention of voucher specimens. W.G.

Biogeography

22. Tod F. STUESSY & Mikio ONO (ed.). – Evolution and speciation of island plants. [Papers from a symposium convened by the co-editors at the XV International Botanical Congress in Yokohama, Japan, August 1993]. – Cambridge University Press, Cambridge, New York & Melbourne, 1998 (ISBN 0-521-49653-5). XV + 358 pages, black-and-white illustrations, hard cover. Price: £ 50.

A caveat to begin with: the title is misleadingly broad, perhaps a publisher's trap for the inadvertent customer. While not properly a symposium volume, the book nevertheless has its roots in a symposium organised by the editors at the XV International Botanical Congress in Yokohama, on 30 August 1993, under the title "Speciation of vascular plants on Pacific islands". Five of the six papers presented at that symposium form the nucleus of the present book (the sixth, by Warren Wagner on phytogeographic patterns in Hawai'i, having been omitted), and the seven additional titles, or chapters (not counting the editors' conclusions and outlook) do little to broaden the theme: the "island plants" of the title are, in fact, vascular plants of thalassogenous

(sea-born, or "oceanic") islands in the Pacific Ocean.

This being said, the book is excellently edited, to form a much more coherent contribution to knowledge than a symposium fallout of the usual kind. Geographically it focuses on the West (Bonin Islands), Central (Hawai'i), East (Juan Fernández) and South Pacific (various island groups), plus Ullung Island (Korea) in the Japanese Inland Sea. Case studies of particular genera alternate with considerations of evolution and speciation under various angles (adaptive radiation, co-evolution, reproductive ecology, biogeography, chromosomes), not neglecting conservation aspects. Two general overviews on chromosomal evolution and secondary compounds do consider some examples from outside the Pacific area, including the Macaronesian (but not any Mediterranean) islands. On the whole, the book provides pleasant and instructive reading to all interested in island biogeography. W.G.

Chorology

23. Oriol de BOLÒS I CAPDEVILA, Xavier FONT I CASTELL, Xavier PONS I FERNÁNDEZ & Josep VIGO I BONADA (ed.) – Atlas corològic de la flora vascular dels Països Catalans. Volum 8 [ORCA: Atlas corològic, 8]. – Institut d'Estudis Catalans, Secció de Ciències Biològiques, Barcelona, 1998 (ISBN 84-7283-431-x). [614] pages, maps 1520-1815, paper. Price: Ptas 2500.

Publication of this carefully edited and remarkably well organised basic chorological atlas (see OPTIMA Newsletter 33: (8). 1998, and earlier reviews cited there) continues at high speed and with great regularity. The 296 distribution maps of the present volume correspond to the species numbered 927 to 1143 in the *Flora manual dels Països catalans*, i.e. to a number of families of small to medium size, from *Resedaceae* to *Araliaceae*. *Umbelliferae* will come next in sequence.

Same as in earlier volumes, a few species included in the *Flora* were omitted, probably because no new, reliable data on their occurrence in Catalonia were available. They include *Helianthemum leptophyllum*, *Hypericum hyssopifolium*, and *Cornus mas*. Two further species for which one looks in vain, *Polygala vayredae* and

Drosera anglica (or *longifolia*), had their maps published earlier, in vol. 1 (the same is true for *D. rotundifolia*, mapped again here in second edition). On the positive side, a number of taxa have been mapped that are absent from the *Flora*, having been recorded or distinguished but recently: *Reseda lanceolata*, *Fumana scoparia*, *Tamarix dalmatica*, *Elatine brochonii*, *Hypericum linariifolium*, and *Sida rhombifolia* (a new introduction); one has been described as new but recently (*Erodium aguilellae* López Udías & al. 1998), and two may be undescribed to date (*Reseda alba* subsp. *crespoi* O. Bolòs & al. and *Helianthemum marminorense* Alcaraz & al.). All in all, a quite remarkable amount of progress for a country whose flora was deemed to be better known, perhaps, than that of any other Mediterranean area of comparable size! W.G.

24. Oriol de BOLÒS I CAPDEVILA – Atlas corològic de la flora vascular dels Països Catalans. Primera compilació general. Part I: *Abies-Lagoecia*. Part II: *Lagurus-Zygo-phyllum*. [ORCA: volum extraordinari]. – Institut d'Estudis Catalans, Secció de Ciències Biològiques, Barcelona, 1998 (ISBN 84-7283-380-1). [8], [5] + 1102 pages, 4407 maps, 2 volumes, paper. Price: Ptas 5000.

At the present speed of production, the regular chorological atlas for the flora of Catalonia (see above) will be completed in about ten years' time. Nor a terribly long delay, one may think – yet too long for the ebullient Catalans to wait. As a result, the present twin volume has been published, showing the present state of knowledge for the whole Catalan flora in synthetic format, produced directly from the corresponding database. One may note a few omissions, for reasons unknown, with respect to the maps published earlier in the fuller format, but also, the corrigenda to earlier maps just listed in vol. 8 of the *Atlas* have been taken care of in the present edition.

The maps have been somewhat reduced in size, so that four fit on a page; also, the chorological data underlying the maps are not documented. This results in a concentration factor of 8 when the present synthesis is compared to the regular *Atlas*. What may perhaps be judged by the local expert as lacking sufficient factual detail will, as a rule, be fully satisfactory for the

purposes of the general plant geographer. For him, it's all there in a nutshell.

There is a most enjoyable news item in the preface to the present work: the fourth and last volume of Bolòs & Vigo's *Flora dels Països catalans*, comprising the monocot treatments, is now in press and we may hope to hold it before long. With this achieved, Catalonia will be the most fortunate of all Mediterranean countries, in botanical terms. Congratulations! W.G.

Regional studies of flora and vegetation

25. Octavio RODRÍGUEZ DELGADO, Marcelino J. DEL ARCO AGUILAR, Antonio GARCÍA GALLO, Juan Ramón ACEBES GINOVÉS, Pedro Luis PÉREZ DE PAZ & Wolfredo WILDPRET DE LA TORRE – Catálogo sintaxonómico de las comunidades vegetales de plantas vasculares de la subregión canaria: Islas Canarias e Islas Salvajes. Versión Español/ Inglés. [Materiales didácticos universitarios, Serie biología, 1]. – Servicio de Publicaciones, Universidad de La Laguna, Santa Cruz de Tenerife, 1998 (ISBN 84-7756-457-4). 130 pages, boards.

The present "synonymic" inventory of syntaxa found on the Canary and Salvage Islands fulfils a double scope: to serve as a quick means of reference for the vegetation scientist and as a teaching device. While confined to vascular plant communities (to which cryptogams may be admitted as guests, as in the *Eucladio-Adiantetum*), it otherwise aims at complete coverage of all plant communities that have so far been described from the area, including those which have not yet been validly named.

An expert of plant nomenclature as the present reviewer may perhaps be forgiven when he cannot help smiling at the zeal with which phytocoenologists start copying the *International code of botanical nomenclature*, down to the intricacies of spelling corrections and conservation proposals. When he then stumbles over double genitive monsters such as "*paraliasi*" (when *παρالياς* is already a Greek genitive noun, meaning "of the beach") his smile may, unkindly, broaden to a grin. Yet even he will be truly and honestly impressed by the thoroughness of the synthesis here achieved, the amount of synonymy generated (no less than 691 numbered synonyms for a

total of 263 recognised plant communities in the rank of association of below), and the wealth of literature faithfully cited in the appended bibliographical survey. W.G.

- 26. Jordi CARRERAS & Josep VIGO – Mapa de vegetació de Catalunya 1 : 50 000. La Seu de Urgell 215 (34-10).** – Institut Cartogràfic de Catalunya, Barcelona, 1997 (ISBN 84-7283-389-5 & 84-393-4452-X). 73 pages, graphs, map and colour legend, flexible cover; with folded colour map by Jordi CARRERAS, Empar CARRILLO, Xavier FONT, Josep M. NINOT, Ignasi SORIANO & Josep VIGO; flexible cover and twin plastic pouch.

The present vegetation map and correlated explanatory text forms part of what appears to be a major vegetation mapping project which, judging from the title, is planned to extend to the whole territory of Catalonia (at least, that is, to its Spanish parts). When presenting two earlier items of this series (see OPTIMA Newsletter 33: (8-9). 1998) I expressed some puzzlement as to the details of the project and the extent to which other maps might have been published earlier, and I then promised to provide more details on the subject when they became available. Our readers will, alas, have to wait some more: in the present document, there is again no reference whatever to other published or progressing maps except for the unspecific reference, in one place, to "previous sheets of this serie[s]".

The area covered belongs to the Central Pyrenees. It is situated roughly to the north-west of la Seu d'Urgell, which appears in its lower right and corner, and west of Andorra of which a small portion (not mapped) extends to the top right of the sheet. The watershed between to major river basins, of the Noguera Pallaresa to the north-west and of the R o Segre to the south-east, crosses the map slightly above its middle in a ENE to WSW direction. The highest elevation of the area, the Torreta de l'Orri, is a lateral extension of this major divide. Except for some bands of hard rocks (limestone, sandstone or conglomerate) the whole area, including all higher elevations, consists of old, mostly metamorphic schist.

W.G.

- 27. C sar PEDROCCHI RENAULT (ed.) – Ecolog a de Los Monegros.** La paciencia como estrategia de supervivencia. – Instituto de Estudios Altoaragoneses, Huesca & Centro de Desarrollo de Monegros, Gra en, [1998] (ISBN 84-8127-063-6). 430 pages, photographs, maps and graphs mostly in colour, flexible cover.

The area of los Monegros is a vast hilly plain lying to the left of the Ebro river along its middle course, east of the old town of Zaragoza. It is an arid area naturally covered by steppes and salty lagoons, and is one of the big marvels and invaluable treasures of Europe's and the Mediterranean area's natural heritage, both by the unique beauty of its landscapes and the richness and originality of its plant and animal communities. As so many other sites of great naturalistic value, los Monegros have been and still are at high risk, mainly through the irrational extension of irrigated cultures to natural areas which are basically unsuited for sustainable exploitation of this kind.

The present book sings a song of love and pride for los Monegros as they were and in part still are, sung by those who know and who care. It is a remarkable document, most of all, I should say, by its effort to convey feeling and concern through the dispassionate display of factual information. It is a scientific work and at the same time, nonetheless, a work of poetry and of art.

The botanist and biologist will be interested by the general chapters dealing with the geology, hydrography and climate of the region; by the narration of the means by which plants of all kinds have managed to survive in the hostile, arid habitats and withstand its adverse conditions; by the descriptive, richly illustrated chapters dealing with the various cryptogamic groups as well as higher plants and plant communities; but he will also read with keen interest the chapters on animal life, for instance the one describing faunal interactions with a characteristic tree species of the area, *Juniperus thurifera*. The specialist will be pleased to resort to scientific inventories of species of algae, vascular plants, plant communities, and many animal groups, provided in an appendix.

OPTIMA has long taken an active interest in averting the threats of destruction faced by the wildlife of los Monegros, trying to support local biologists in their fight against incomprehension and ignorance of the local population and politi-

cal decision-makers. The VI OPTIMA Meeting in Delfi in 1989, "bearing in mind the extraordinary biological interest of the arid areas in los Monegros ... [and] alarmed about the predictable consequences ... following the implementation of land use projects, implying irrigation", resolved "to encourage Spanish biologists in their efforts ... to protect it in its present natural state ... [and] to urge ... authorities to view favourably proposals made for the conservation of the area in question". The resolution's impact was at best moderate, and irrigation of natural areas has been and still is spreading. Last year, the IX OPTIMA Meeting in Paris decided that letters were to be sent to the competent authorities, renewing the appeal and, specifically, asking for the establishment of protected areas of land so far unspoilt by agriculture, such as the Bujaraloz plateau with its salt lakes, the Serreta Negra de Fraga, the Barranco de los Bojes, the juniper stands of the Retuerta de Pina, and the Serra de Alcubierre. This letter, which I had the honour to address to the President of the autonomous region of Aragón, in Zazagoza, remains unanswered to date.

Let us hope that, in spite of the difficulties involved, this marvellous book will help saving los Monegros from further destruction. Let it not become, as is to be feared, a requiem for beauty past and irretrievably gone! W.G.

28. Emanuele BOCCHIERI – L'esplorazione botanica e le principali conoscenze sulla flora dell'arcipelago della Maddalena (Sardegna nord-orientale). [*Rendiconti del Seminario della Facoltà di Scienze dell'Università di Cagliari*, 66, Suppl.]. – Seminario della Facoltà di Scienze dell'Università, Cagliari, 1996. [4] + 305 pages, maps and graphs, paper.

Professor Bocchieri has for many years been specialising in the study of the small islets off the Sardinian coast, and has published numerous papers on their flora and plant geography. He now devotes a full-scale monograph to the most famous and most finely patterned of these island groups, the Maddalena archipelago, situated at the north-eastern end of Sardinia, in the strait between that island and Corsica. It comprises no less than 62 islands and islets with a surface of at least 300 m², of which 36 have so far been explored botanically.

The present study is a continuation and update of the earliest in-depth study of Mediterranean small-island biota, conducted by Vaccari between 1890 and 1908. It is, in the same time, a geographical complement and counterpart to the exploration of the circum-Corsican islets by Lanza & Poggesi, published in 1986 (see OPTIMA Newsletter 20-24: (44). 1988). Vaccari had eventually reported 743 plant taxa from the archipelago; the present figure is 986, of which 811 (755 species, 54 subspecies and 2 varieties) are considered to be spontaneous).

The core of the present book consists of floristic data, but analysis is also present: Raunkiaer spectra and representation of families and genera are given for the major islands, and the phytogeography of some of the characteristic species is discussed. More is presumably to come. By now, it appears that the "small-island specialists" so prominent in the Aegean area are rather marginally represented here. Two of three such taxa that are found around Corsica (*Allium commutatum*, *Lavatera arborea*) are also widespread in the Maddalena archipelago, but the third (*Parapholis marginata*) is lacking, while an additional one (*Hymenolobus procumbens* subsp. *revelierei*) is found. An endemic or subendemic element (e.g. *Limonium cunicularium*, *Nananthea perpusilla*, *Silene velutina*) is of particular note.

The need for regulations to protect the utterly fragile small-island biota, alluded to in the introduction, is obvious enough when one judges from the material presented here. A call for such legal action should, perhaps, be more forcibly reiterated elsewhere in a suitable context W.G.

29. Francesco M. RAIMONDO & Rosario Schicchi (ed.) – Il popolamento vegetale della riserva naturale dello Zingaro (Sicilia). Indagini sulla flora, sulla vegetazione e sull'uso tradizionale delle piante presenti nella riserva ai fini della gestione, della salvaguardia e dell'educazione ambientale. [*Collana Sicilia Foreste*, 3 & *Rivista trimestrale Sicilia Foreste*, Suppl.]. – Dipartimento di Scienze botaniche, Università degli Studi, Palermo, 1998. 205 pages, graphs, maps, drawings and photographs (mostly in colour), paper.

The Zingaro area is comprised of a steep coastal strip of difficult access, on the western

side of the gulf of Castellammare in the Trapani Province. When it was declared nature reserve in 1981 it was still virtually untouched and hardly explored botanically. It became somewhat better known when, in 1986, an atlas with the drawings and descriptions of many of its representative plants was produced by Raimondo & al. (see OPTIMA Newsletter 20-24: ((51-52). 1988).

The present book now includes the results of an in-depth botanical study of the area. Generously illustrated by colour photographs, it deals with a variety of aspects (not quite devoid of redundancy) such as climatic data, grid distribution maps of the (sub-)endemic taxa, baseline data for all species that are used locally, and characterisation, by relevés, of the various plant communities found. Besides there are inventories of the fungal, lichen, bryophytic, and vascular flora, the latter in duplicate (once with area type and growth form indicated, arranged by families; then again with local distribution given and in alphabetical sequence – the latter being repeated unchanged for the endemic elements).

The redundancy alluded to above may be beneficial (others might say, dangerous) for spotting errors and inconsistencies due to careless proof-reading. This concerns principally the distribution maps, which (quite apart from the fact that the numbering of the two last unit grid squares is consistently misplaced) show many discrepancies when compared with the numerical data. In particular, the wrong map has been printed for *Vicia altissima*, that for the previous species, *Spiranthes spiralis*, being used twice.

I'll stop nit-picking here. The book deserves better than being judged on minor shortcomings. In a general way, it is an excellent and commendable example of how money can be generated and put to good use for the promotion of environmental awareness among an interested lay public in general and the younger generation in particular. W.G.

30. Zaharias L. KUPRIÔTAKÊS – Sumbolê stê meletê tês hasmofutikês hlôridas tês Krêtês kai tês diaheirisês tês ôs fusikou porou, pros tèn kateuthunsê tou fusiolatrikou tourismou, tês anthokomias, tês ethnobotanikês kai tês prostasias tòn apeiloumenôn fytikôn eidôn kai biotopôn. [Contribution to the study of the chasmophytic flora of Crete and to its utilization as a natural resource, to

the direction of the ecotourism, the floriculture, the ethnobotany and the protection of the threatened plant species and their biotopes.] – PhD Thesis, Tomeas Biologias Futôn, Tmêma Biologias, Panepistêmio Patrôn, Patra, 1998. [12] + 197 pages, graphs and maps, 11 extra plates of colour photographs, paper.

The author of this PhD thesis has been in charge of the botanical garden of Iraklion for many years and could thus explore the flora of his island, both in his professional capacity and out of personal interest. He thereby became thoroughly acquainted with the rare and endemic plants of Crete, to which he has recently added a few newly discovered ones (*Allium platakisii*, *Limonium cornarianum*, *Scilla talosii*). He is also to be credited with the first Cretan finds of, e.g., *Silene fabaria* and *Allium pallens*, with the rediscovery of *Fumana laevipes* which had not been seen on the island since 1817, and with the addition of many new localities to the known distribution of the rare and endemic plants of the island.

The present work deals with the most famous part of the flora of Crete: the plants growing in fissures of steep or vertical cliffs. Concretely, 70 cliff systems have been investigated, scattered all over Crete and the surrounding islets, and within these, 100 cliff faces have been inventoried in detail. The results are given, first in the form of a straightforward floristic catalogue, then by interpreting the data in various ways.

Classification is the taxonomist's pet activity. Kypriotakis classifies everything, to start with the cliffs themselves. He divides them up into 7 categories, depending on whether they occur pair-wise, as in the famous gorges, or singly; and on the altitude and situation with respect to the sea coast. The plants themselves he will classify, according to their faithfulness to the cliff habitat, into obligatorily, predominantly, partially, and facultative chasmophytes. Other classification criteria are threatened status, suitability for ornamental purposes, edibility, pharmaceutical and aromatic properties, and potential for the colonisation of disturbed habitats. These latter groupings are meaningful in so far as they strengthen the case for granting adequate legal and factual protection to these plants and their habitats, often under threat and easily destroyed.

Of course, as Kypriotakis is thoroughly familiar with his plants, his groupings make good

sense, are meaningful in appearance and show promise as to their usefulness. The problem, basically, is that the categories are ill defined, the criteria used not clearly spelled out, and the factual basis of their case-by-case application not mentioned. This is a pity, as the author must in many cases (even though probably not always) dispose of valuable data and experience that remains hidden in his brain, or in his unpublished notes. Take the edible, medicinal and aromatic plants: what parts are used, for which purpose, and by whom? Or the plants allegedly showing promise as ornamentals or for disturbed site reclamation: what are the qualities they show, what is known of their properties in cultivation, ease of propagation, hardiness, longevity, soil retention faculty? The mere enumerations here provided make us avid to know more, but we are left hungry. This is meant, not so much as a criticism, but as a plea for more details to follow.

The results of statistical analyses are valuable in that they confirm and quantify what one used to suspect: that of the 614 vascular plant taxa found "on the rocks" (about one third of the total wild flora) a large proportion (32 %) belong to the endemic element, and that this rate increases when the 80 obligatory chasmophytes alone are considered, of which more than half are Cretan and three quarters Greek endemics; that annuals are underrepresented among the cliff plants, their proportion dropping from almost half (among the optional chasmophytes) to zero (obligatory chasmophytes, among which the chamaephytes predominate); and that the cliff-face flora is highly diverse, with low similarity coefficients (of less than one third) even between neighbouring and ecologically similar localities.

This is a promising start, to be welcomed by Crete's botanical fans familiar with the language. We are keenly awaiting the continuation. W.G.

31. Maria PANITSA – Sumbolê stê gnôê tês hlôridas kai tês blastêsês tôn nêsîdôn tou anatolikou Aigaiou. [Contribution to the knowledge of the flora and vegetation of the East Aegean islets (Greece).]– PhD Thesis, Tomeas Biologias Futôn, Tmêma Biologias, Panepistêmio Patrôn, Patra, 1997.[14] + 345 pages, drawings, maps, graphs (some in colour), 7 extra plates of colour photographs, paper.

Islet biogeography is the new fashion – and most appropriately so, as these minute biota provide choice natural laboratory conditions for a whole series of essential questions and, furthermore, are threatened, most fragile habitats in urgent need of protection. Panitsa's PhD thesis is in the trend, and having all these wonderful islets virtually on her door-sill (well, not quite: there are quite some boat trips and adventurous rides on shaky caiques involved!) she was ideally placed for performing this kind of research.

Her target were 75 islets of varying size, from one half to 16,000 stremmata (ever heard of a στρεμμα? it is 0.1 ha; international units would have been more user-friendly), widely scattered over the central portion of the E. Aegean Sea. Of these she inventoried the vascular flora (comparing it with Runemark's earlier results for 22 of them, thus estimating species turnover) and studied the vegetation. Her total inventory comprises 725 vascular plant taxa, a few of which are new records for the East Aegean area. By the sheer bulk of new, accurately documented floristic data, her work is a remarkable performance.

The thesis includes a thorough statistical analysis of the data as well as a classification of the observed vegetation patterns into formal plant communities. All this is of interest and, generally, well done and well presented (there is a detailed and informative summary in excellent English for the benefit of those unfamiliar with the Greek language). Minor points of criticism may, of course, be raised. One of the new (provisional) associations, the "*Anthemidetum scopulori*", bears witness of the regrettable spread of Latin illiteracy. The comparison of average numbers of species per surface unit does not make sense when widely different surface areas are concerned. Use of the term "sublittoral" ("υποπαραλιακος") when supralittoral (επιπαραλιακος) is meant, is confusing. Also, inferring the proportion of "temporary flora" from differences between individual inventories during short stopovers, perhaps at different seasons, is a bit too bold. But such imperfections, if regrettable, cannot blur the overall impression of solid scholarly work, nor will they tarnish the beauty of the colour photographs which, well reproduced on special, glossy paper, illustrate admirably well the charm of some of the least accessible land fragments in the Aegean sea. W.G.

- 32. Harald KEHL – LÖKAT. Eine landschaftsökologische Komplexanalyse zu den Ursachen extrazonaler Vegetation an der Westabdachung des Amanus (Südost-Türkei).** – Agnos, Neue Kantstr. 31, D-14057 Berlin, 1998 (ISBN 3-00-003156-1). CD-ROM in plastic case (.pdf file for Windows and Macintosh; with free Adobe Acrobat Reader diskette, on request). Price: DM 75. [Also available as hard copy: 2 volumes, XII + 655 pages, 6 loose tables and 8 loose maps (ISBN 3-00-003155-2), at DM 780.]

So that's (perhaps) how the future will look: empty bookshelves, except for the few who are able and willing to pay ten times the price. Of course, CD publishing is still in a somewhat experimental phase, rapidly and unpredictably evolving. So, who knows how easily the present electronic versions can be consulted in, say, ten years' time. But apart from this uncertainty, honestly, the product that is presently on my CD drive works admirably well, at a comfortable speed (except for the build-up of some of the more finely grained images) and with options one could not dream of a little while ago.

Under the acronym LÖKAT, Harald Kehl is publishing the results of five years (1988-1992) of field work in S.E. Turkey, on the western slopes of the Amanus Mountains in the Hatay Province, up to the subalpine level (2200 m). The stress of his study is on vegetation analysis and vegetation dynamics, and the bulky appendices (the second of the two hard-copy volumes) are full to the brim of detailed data of various kinds: soil analysis results, vegetation tables and their statistical interpretation, and last but not least a detailed inventory of the flora in tabular form. All these results are adequately presented, illustrated and discussed in the first volume.

The electronic text is stored as formatted layout mimicking the printed version. The text is searchable but not printable, and a zooming-in option is provided for the text, tables and illustrations alike. The Adobe Acrobat Reader, a freeware package needed to read the disk, can either be downloaded from the Web or from a 5¼' diskette provided on a complimentary basis.

The switch from leafing through a book to turning the pages on-screen by mouse click involves changing inveterate habits, but one gets used to it. The searching and zooming options

are great, especially if you think of the small print of some of the hard-copy tables that requires a hand-lens anyway for comfortable reading. Resolution of some of the text illustrations (photographs and maps) is not ideal, presumably due to memory space limitations. But this, frankly, is the only critical point I come to think of. W.G.

Applied botany

- 33. Karl HAMMER, Helmut KNÜPFER, Gaetano LAGHETTI & Pietro PERRINO – Seeds from the past.** A catalogue of crop germplasm in Central and North Italy. –Istituto del Germoplasma del Consiglio Nazionale delle Ricerche, Bari, 1999. [3], I-II, [1], III-IV + 255 pages, 8 maps, paper.

This is the companion volume to one that was published in 1992, by the same authors and under the same general title, for the plants of southern Italy and Sicily (see OPTIMA Newsletter 32: (19-20) 1997). Dealing with the regions north of Campania and Apulia, it completes the coverage for the whole of peninsular Italy. The area has been explored by several germplasm collecting expeditions since 1987, based on a bilateral co-operation between the renowned crop research institutions in Bari and Gatersleben. The present inventory, same as the earlier one, is not however a catalogue of the 486 collected samples, which are mentioned only in general terms, but an enumeration of all cultivated plants (except mere ornamentals) and their potential wild progenitors found in the area. This catalogue, which mentions vernacular designations and known distribution (by regions), documented use, as well as other relevant details of origin, importance, etc., comprises entries for 551 different species and 20 additional infra-specific taxa. The amount of (Italian and dialectal) folk names thus registered is particularly impressive: their alphabetic index has no less than 10,762 entries, which means that the book is, among other things, an important source work for ethnographic and linguistic studies.

An alarming undertone pervades this work. The fact that the number of samples accessioned in the germplasm collection is relatively low (486, as opposed to 1622 for southern Italy and Sicily, relating to merely 83 species which is a

tiny fraction of the total) reflects a spectacular if not exactly documented genetic erosion. The loss of land races, which was found to be 75 % in the south, is estimated to be even heavier (c. 90 %) in central and northern Italy. Documenting and saving what is left is a great challenge of considerable economic and political import.

Work of the Bari-Gatersleben team continues, its present emphasis being on the areas not yet covered: Sardinia and the smaller islands. Hopefully, within a couple of years, a complement for these areas and/or a cumulative inventory for the whole of Italy can be produced. W.G.

Conservation topics, red data books

34. Kerry S. WALTER & Harriet S. GILLET (ed.) – **1997 IUCN red list of threatened plants.** – International Union for Conservation of Nature and Natural Resources, Gland CH & Cambridge UK, 1998 (ISBN 2-8317-0328-X). LXIV + 862 pages, 1 graph, paper.

Normally one would speak of an impressive volume. Shattering, however, is more appropriate a qualifier. The fact that one out of eight vascular plant species of this globe has been assessed as being under immediate threat of extinction is evocative of apocalyptic views such as a bare planet from which trees have disappeared, with the surviving part of humanity (if any) camped in the midst of deserts.

A second look will do little to reassure you. Not only is the number of listed species (31,195), or taxa (35,319), shocking, but we are told, and can readily believe, that this is not all. "Many taxa have had to be omitted ... due to insufficient information"; and "data, in particular for many parts of Africa, Asia, the Caribbean, and South America, are either patchy or lacking": two significant quotations from the introductory matter.

Where does the Mediterranean area stand in this global context? I have tried to extract a few relevant data from the very instructive tabular surveys preceding the main taxonomic list. Six Mediterranean countries are among those for which over 5 % of their vascular flora are at risk: Turkey (1876 species = 21.7 %), Spain (985 species = 19.5 %), Greece (571 species = 11.4 %) Italy (311 species = 5.6 %), Portugal (269 spe-

cies = 5.3 %), and Morocco (186 species = 5.1 %). Summing up the threatened species for the whole Med-Checklist area, while bearing in mind that, globally, over 90 % of the threatened species are single-country endemics, one can estimate the total number at just under 5000, or over 20 % of the c. 24,000 wild vascular flora.

One must be very careful when comparing such figures, especially for areas and/or floras of widely different sizes. Yet, within the Mediterranean area, one expects that the rates of threat and endemism will run parallel. The fact that they do not shows that, and where, the figures are distorted: the countries for which the threat rates are unrealistically low are Morocco (over 20 % endemism but only 5 % threat), Syria and Lebanon (8 % endemism and less than 0.5 % threat).

Of the Mediterranean plant species, 38 are presumed extinct (not collected in the last 50 years) and 14, likely extinct. The criterion for presumed extinction is not really appropriate for some of the less well explored Mediterranean countries, though, and the figures may be misleading. Another, even more important aspect should be borne in mind when interpreting the *Red List*: whereas rarity (R) is listed as the threat reason in almost half of the cases, rarity is doubtless a natural phenomenon, not necessarily (and perhaps, in the Mediterranean at least, not usually) caused by man. This does not mean that rare species should not be listed as requiring particular attention and care, but rather, that not all the "threat" that is here documented is a man-made phenomenon.

Twenty years ago, a kind of precursor of the present book was published: the *IUCN plant red data book* of Lucas & Syngé (see OPTIMA Newsletter 8/9: 56-57. 1979). It included a selection of 250 case studies of threatened plants, each on two text pages. If a similar format had been applied now, the result would have been a "book" of over 70,000 pages! The format chosen had, by necessity, to be as economic of space as possible. Yet, it has been possible to include citations of literature sources for all listed entries – a great boon for the critical user, and a most positive aspect that deserves being underscored.

As it stands, the *Red List* is a major achievement and a document of much political weight. It is also, as the authors acknowledge, a work calling for further refinement and im-

provement. Gaps and inadequacies of geographical coverage I have already mentioned, but a better and more equal coverage of the infraspecific categories (mainly subspecies) should also be aimed at. And then there is, of course, the whole huge domain of non-vascular plants: will we live long enough to see them treated along comparable standards? W.G.

35. Robert SALANON & Vincent KULESZA – Mémento del la flore protégée des Alpes-Maritimes. – Office National des Forêts, Paris, 1998 (ISBN 2-84207-113-1). pages I-XI + sheets 1-248 + pages 249-284, 248 colour photographs, flexible cover. Price: FFr 250.

With its less than 4000 km² the Alpes-Maritimes are a smallish French department, yet due to their great diversity in terms of altitude, substratum, climate and special habitats they are likely the richest one from a floristic point of view, hosting almost 60 % (c. 2700 species) of the country's vascular flora. The legal bases for the conservation of all these riches do exist, but as long as there was no clear guidance as to what species do in fact benefit of at least some kind of protection, and how they look, the practical effect of rules and laws was at least questionable.

Salanon & Kulesza's book resolves this difficulty, as it provides the local authorities, conservation managers and the general public (often the best possible custodian of our threatened diversity) with all required information. Of the c. 360 species that benefit from at least some degree of protection at the departmental, national, or international level, 248 are treated in full. The remainder belong to either of the following categories: orchidaceous taxa protected in a general way by the Washington convention but not mentioned specifically in legal texts or lists (69 taxa); plants impossible to protect because they have already disappeared from the department (40 species, including some that were only casuals in the area); and those that in fact never existed but had been reported due to some kind of error (17 species).

For each of the species presented, the data and illustration are displayed on one page, with the verso of the sheet blank and unpagged, so that the leaves can be cut loose and used as a file card. The legal bases of protection are enumer-

ated and numerical references to relevant literature are added in each case. Besides, there are descriptions, an illustration (usually a colour photograph of the natural habit, exceptionally of a herbarium sheet when the plant has not been seen recently), data on general and local distribution, conservation status, and useful measures to be taken. The threat degree and protection level vary widely, from the endangered, local endemic to the curious naturalised alien (*Cyrtomium fortunei*), from the utterly rare plant not recently seen in the wild to the common blueberry for which fruit harvest by combing and/or for commercial purposes is forbidden

The book is one of those excellent practical contributions to nature conservation that one is pleased to announce and commend. Among its qualities is the fact that it includes some pictures that are rarely seen, such as the photograph of flowering *Posidonia oceanica*. W.G.

36. Fausto BONAFEDE, Dino MARCHETTI, Renato TODESCHINI, Michele VIGNODELLI & Carlo DEL PRETE – Felci e piante affini nella provincia di Modena. Uno studio preliminare finalizzato al monitoraggio ambientale e alla conservazione della biodiversità. [*Quaderni di documentazione ambientale*, 9.] – Settore Difesa del Suolo e Tutela dell'Ambiente, Provincia di Modena, Via J. Barozzi 340, I-41100 Modena, 1998. 77 pages, maps and graphs, 12 colour photographs on 8 extra plates, flexible cover.

In a way this is a sophisticated interim report, as the working group's efforts to inventory and monitor the pteridophytes of Modena Province continue and more data keep being added to the database on which the project relies. The basic idea behind the whole enterprise is that the ferns and fern allies, owing to their ancestral and in many ways exposed life cycle, are particularly vulnerable to environmental disturbance and therefore threatened to an above-average degree (as evidenced by more than half of their species being on a Red List for Germany), but that in Italy only a minority of them is known to be at risk (23 out of 132 species, according to the 1992 Red Data Book for Italy – see OPTIMA Newsletter 30: (42-43). 1996).

The core of the present report presents grid distribution maps for the 53 taxa (51 species) so

far recorded for the Modena Province – a narrowly rectangular area of the Emilia-Romagna Region, about two dozens km wide, extending from the river Po to the watershed of the Apennine chain. Mapping is by grid units of 3' lat. by 5' long. (c. 5 × 6 km) and is based on field prospecting by an amateur group (c. 1200 records) and literature sources (277 records) but not so far on herbarium holdings. Several taxa are new records for the Province's flora, or confirm older dubious records, but two of the recorded species (*Botrychium multifidum*, doubtfully present, and *Diphasiastrum tristachyum*) have not been found again.

The overall patterns observed tend to confirm the initial hypothesis of a relatively high threat for pteridophyte species. Preliminary conclusions define a number of localities of rare taxa that deserve continued monitoring, and suggest that the list of species protected by law on a provincial level be widened from the single present one (hart's-tongue) to a total of 8. It is beyond this reviewer's understanding why the three Italian Red Book species present (*Botrychium matricariifolium*, *B. multifidum*, *Salvinia natans*) have been left off that proposed list. W.G.

37. Mauro BIAGIOLI, Giovanni GESTRI, Bruno ACCIAI & Antonino MESSINA – Le verdi perle del Monteferrato. Nell'area protetta, alla scoperta di orchidee selvagge ed altri fiori rari. – Gramma, Perugia, & Municipality of Montemurlo, 1999. 191 pages, drawings, graphs, maps (incl. 3 in colour, one of which as loose insert), colour photographs, cloth with dust jacket.

Never heard of Montemurlo? Nor had I, but this is now going to change. A hillside municipality in Tuscany, NW of Florence, Montemurlo has adopted a most remarkable policy of promoting scientifically-based environmentalists' efforts. The present book, which for a minor community is a most remarkable achievement, is said to be just a first step in this direction, with more to follow.

The book is devoted to the protected natural area of Monteferrato, 4500 ha of hilly country mostly covered by deciduous woodland, not quite reaching 1000 m of altitude, and shared between the three municipalities of Montemurlo,

Prato, and Vaiano. The area has a fairly complex geology, consisting mainly of limestone, marl and schist but with a remarkable nucleus of ophiolitic rocks. The latter accounts for the presence of some of the rarer specialities among the local flora.

The flora, and within it the orchid family, are the main subject of the text and images here presented. One must congratulate the authors for having achieved an attractive mix of science and beauty, writing as they do in a scientifically flawless yet utterly readable style. The chapter devoted to the general flora (pp. 38-60) is less exhaustive but just as attractive as the core portion dealing with the orchid family (pp. 61-160, not counting the indexes). The quality of the photographs, both technically and aesthetically, is absolutely remarkable.

In short: the book is a jewel. Read it, enjoy it – then go and visit Montemurlo. W.G.

38. Mohamed FENNANE & Mohamed IBN TATTOU – Catalogue des plantes vasculaires rares, menacées ou endémiques du Maroc. [Boccone, 8]. – Herbarium Mediterraneo Panormitanum, Palermo, 1998 (ISBN 88-7915-008-1). 243 pages, 2 graphs, 1 map, paper. Price: Lit 60,000.

Remember? When I discussed the *IUCN Red List* (item 34) a couple of pages before, I ventured the guess that the threat rate recorded there for Morocco (5%, or 186 species) was unrealistically low. Now here is a list of the rare, threatened and endemic vascular plants of Morocco to bear out what I suspected. Of its 2819 entries no less than 2374 are assigned to one of various threat categories (which figure includes c. 130 erroneous or doubtful records). Extrapolated to a world scale, the threat can be estimated to affect 700 taxa or 550 species (15%), three times as much as was previously thought!

These bare figures suffice to fully justify the need for the present inventory. It includes a first overview of endemism in Morocco, defined widely to include taxa extending to neighbouring areas (Algeria, Iberian Peninsula, Atlantic Islands, Mauritania), and a new assessment of the degree of rarity (or vulnerability) of endemic and threatened non-endemic taxa (species and subspecies). Awkwardly, the category of doubtfully present and erroneously recorded taxa includes

presumed extinctions, but the latter are exceedingly few. Leaving apart some cases of suspected disappearance from Morocco of taxa subsisting elsewhere, eight entries remain of species listed as endemics that have disappeared. One of them was known and documented previously (*Trifolium acutiflorum*), a second undisputed extinction (*Diploaxis siettiana*) concerns the national territory of Spain although phytogeographically it rather pertains to Morocco (concretely, to the Alborán Island). The six remaining presumed extinctions all relate to species of doubtful taxonomic status: *Crepis litardierei*, *Thymus mentagensis*, *Alchemilla litardierei*, *Elaeoselinum exinvolucratum*, *E. humile*, and *Misopates fontqueri*. The latter, incidentally, is one of no less than 28 new combinations validated within the list – another indication of how badly needed that list was.

Perhaps due to some mishap with the reformatting of electronic text, and certainly to editorial carelessness, the numbering that must originally have preceded the bibliographic references has disappeared in the printed version. This means that the numerical references given in the main text, whenever appropriate, now appear to be meaningless. The only solution (as long as no erratum sheet has been produced) appears to be renumbering the bibliography by hand! W.G.

Gardens and gardening

- 39. Günther KUNKEL – Jardinería en zonas áridas.** – Ediciones alternativas, Almería, 1998 (ISBN 84-605-7736-8). 145 pages, maps, drawings, photographs, flexible cover.

To build a garden under arid climate conditions – the idea sounds adventurous and tempting; the same applies, perhaps, to producing a book on the subject. The present one, which is written in a refreshingly direct style, has many attractive traits, among which the drawings by Mary Ann Kunkel are prominent, obviating as they do the paucity of photographic documents and the absence of colour.

Günther Kunkel is not a newcomer to the subject. You will thus expect to find many useful ideas among what he writes, and you will not be disappointed. There are thoughts on landscaping as opposed to formal gardening, on practical ways to minimise wind damage and evaporation, on

the most obnoxious weeds (not always the ones you would think of when coming from more northerly latitudes), on pitfalls to be avoided. And then, of course, there is the core section on plants to be used: trees, shrubs, climbers, succulents, very few herbs (just a handful of bulbs, and almost no annuals). Yes, plenty of ideas.

Do not, however, think of the book as a manual, as which it cannot serve. It gives little indication of the specific preferences and limitations of the plants presented, on their hardiness to drought or frost, on their sun or shade tolerance, on specific species mixes for specific situations. Aridity is not even discussed as a seasonal phenomenon (although by implication the author deals mainly or exclusively with summer drought situations). Frost is the only hazard mentioned specifically, and surprisingly, there is no chapter devoted to water or irrigation (although the need of watering is sometimes mentioned in passing). There is no advice on how to get at the plants, although the difficulty of obtaining many of them through the trade, particularly the indigenous ones, is notorious.

The first two drawings show the development of a garden from nothing to maturity within just four years, titled: "gardening is no sorcery". Perhaps not. But how, then, is it done? W.G.

- 40. Mary Jaqueline TYRWHITT – Making a garden on a Greek hillside.** – Denise Harvey, Katounia, GR-34005 Limni, 1998 (ISBN 960-7120-14-0; cloth: 960-7120-13-2). xvii + 247 pages, black-and-white illustrations, paper. Price: £ 10.

Jacky Tyrwhitt, garden architect, successful administrator and organiser, expert of town and country planning, Harvard professor, spent her retirement building and running her own Mediterranean garden on the eastern slopes of Mount Imittos. Her home, bequeathed to the Goulandris Natural History Museum, now hosting the headquarters of the Mediterranean Garden Society, overtops the vast fertile plain of Mesojia, famous for its grapes and other agricultural products. There she wrote this book, whose manuscript had just been completed when she died in 1983. It took fifteen years to show it through the press, but now it is there, a posthumous monument to the last period of her remarkable life.

The book is as its author must have been, British to the bone (although her Harvard past made her be known as the "amerikanida" to the locals). It is a charming mix of anecdote and fact, spread over twelve chapters each featuring one month. Significantly, the seasonal cycle starts, not in spring when most flowers blossom but with the other awakening of Mediterranean nature, in September when the summer drought ends: a turning point of nature that must have been particularly obvious to one who had spent most of her life under temperate climates.

Each of the twelve chapters starts with a narration of everyday life (events), of garden work (jobs), animal life, and of course (how British!) the weather. Then come the flowers, each lovingly characterised, sometimes with mention of origin, rarely of habitat preferences. Scientific names are used (revised by no less an authority than William Stearn!), with equivalent English and Greek vernaculars. Pleasing to note, members of the wild Greek flora outnumber by far the foreign plants, listed separately at the end. The concluding bibliography is the only part that has been re-written and updated by the editors.

In 1980 the Goulandris Museum's live collection of Greek bulbs was donated to the author. Many of these accessions may still survive and, who knows, have their recorded source data attached. If so, they would be valuable material for future taxonomic research! W.G.

Historical subjects and biography

- 41. Franco M. RAIMONDO & H. Walter LACH [i.e.: LACK] (ed.) – *Le mele d'oro. L'affascinante mondo degli agrumi.* – Edizioni Grifo, Palermo, 1998 (ISBN 88-86477-01-5). 212 pages, illustrations in black-and-white and colour, paper. Price: Lit 50,000.**

This book on the citrus fruits is the expanded Italian version of an exhibition catalogue originally published in German language in 1996, when the Botanical Museum in Berlin-Dahlem presented a public show on the "golden apples" (as they were called in Antiquity) that was to run with unprecedented success for eleven months, until February 1997. The fourth presentation of this exhibition, the first outside Germany, started in Palermo on 31 October 1997. The present

publication, meant to serve as its catalogue, but was so ambitiously planned that, when it became finally available, the exhibition had long left Sicily. The result is fascinating enough to make one condone the delay.

The book consists of three main portions, of which the first and most sizeable is the translation of the German original. The texts, by Carsten Schirarend, Marina Heilmeyer and others, describe and illustrate the mythological, botanical, bibliographical, historical and cultural aspects. The second part, by Christiane Garnero Morena, Rosario Schicchi and others, is devoted to citrus cultivation in Italy. The third, essentially by Franco Raimondo, consists of a treaty on the role of citrus fruits in (essentially pictorial) art. Same as the earlier chapters, it is brilliantly illustrated by a remarkable choice of colour reproductions. Throughout the text, summary version in approximate French have been intercalated.

This volume opens new horizons to all who are culturally interested. While it is botanical in essence, the range of subjects treated widely exceeds the natural sciences. It is a fine example of what co-operation of many can ideally achieve – and an attractive present for many. W.G.

- 42. H. Walter LACK – *The Flora graeca story.* Sibthorp, Bauer, and Hawkins in the Levant. With David J. MABBERLEY. – Oxford University Press, Oxford, New York & Tokyo, 1999 (ISBN 0-19-854897-4). xxxi + 327 pages, 69 figures, 9 maps, coloured frontispiece + 16 extra plates in colour, hard cover with dust jacket. Price: £ 250.**

No, don't expect a critique. I couldn't. I just love this book. I like the subject, the story, the way in which it is told. I can do no more but write its eulogy.

I feel that such books as this one are essential, that more of their kind are needed because they are vital for our proper understanding of the ways in which our knowledge of the world around us, and of those parts of the world that are far from home, came about. We need to be told of how our early predecessors worked, how they thought and felt; and we must learn to listen to that tale. In the present case the tale is of an English gentleman who travelled out of his whim through lands then virtually unknown; of the adventures, hardships and achievements in those

foreign countries, his own and of those of his travel companions; of the fate of the harvest brought home, a harvest that would reshape our botanical knowledge of Greece and neighbouring areas; and of much of the contemporary background, historical, political, and cultural, which is needed to fully grasp the essence and the implications of the story told.

The book has, essentially, three heroes: John Sibthorp, the gentleman just mentioned, the young and enthusiastic explorer and naturalist; Ferdinand Bauer, the genial artist and illustrator; and John Hawkins, the broad-minded and erudite amateur and travel mate. The history of their lives is here artfully interwoven: first come their distinct early years, then the common adventure of their first Greek journey, their interactions during the subsequent English interlude, the second journey when Bauer had left the scene, and the later fates and achievements. A lively narrative that has the merit of being based on thoroughly researched facts, on an incredible wealth of mostly unpublished documents: letters, travel diaries, specimens, paintings and drawings. Many of these documents are reproduced, partly in colour, and add their own unmistakable flavour of authenticity to what might otherwise be read as a piece of fascinating fiction.

Sibthorp, the central figure, appears as an eccentric and rather egocentric young man of strong will and energy but rather weak organisational skills. His name might have got lost for posterity were it not for three lucky moves: the hiring of Ferdinand Bauer's services for the first travel and for his subsequent years in Oxford (where he was kept in virtual slavery); the drafting of a will that was as generous as it was precise and clairvoyant, to secure the spectacular publication of his (and Bauer's) achievements; and the knitting of a close friendship with Hawkins who, having become sedentary after his second return from Greece, was to devote the better half of his long and busy life to making that will become true.

While obligatory reading for all who want to really grasp the historical dimension of Mediterranean and Oriental botany, this book is not however a Sibthorpien nomenclator. Rather, it will serve plant taxonomists by directing them to the background information they should know and may need, and by telling them how to interpret and use that information. To this end, it

includes a dozen appendices (among them an index to nomenclatural novelties published in the *Flora graeca* itself and, mainly, its *Prodromus*). The narrative of how Sibthorp's scientific heirs, James Edward Smith in the first place, overcame that legacy's inadequacy (or, more often, stumbled when trying to do so) is not entirely new, but has never been written more clearly. Detailed itineraries, with maps, will be of help in locating the presumed origin of potential type material.

This is not a cheap book to buy, but it is worth every penny of its price; and then – perhaps some kind of consolation – it deals with one of the most costly and most utterly unaffordable works ever produced! W.G.

Festschrift

43. Josep VIGO, Xavier LLIMONA, Ramon Maria MASALLES & Josep Maria NINOT (ed.). – Doctor Oriol de Bolòs. Pioner en l'estudi de la vegetació. [*Acta botanica barcinonensia*, 45 & *Universitat de Barcelona, Col·lecció homenatges*, 16]. – Universitat, Barcelona, 1998 (ISBN 84-475-2007-2). Pages 1-643 + [1-3] + 645-647, hard cover.

In a timely fashion for Oriol del Bolòs's 75th birthday on 16 March 1999 a magnificent festschrift has been published in his honour. It includes exactly 40 papers on a variety of subjects more or less directly related to the vast thematic spectrum of his own research.

The three initial papers deal with the life and achievement of this most remarkable among the living botanists of Catalonia. His biography was written by one of his earliest doctoral students, Josep Vigo. The two following texts concern Bolòs's contribution to scientific terminology and to the botanical knowledge of the Balearic Islands. Mycology and lichenology are represented by three papers, phycology by four, and one is devoted to bryology. The remainder concern vascular plant taxonomy and geobotany in its widest sense.

Not surprisingly in view of the pride the Catalonian take in their own language and culture, most of the papers are written in Catalan (which is however easily understood by the French and/or Spanish speaking). The exception are five papers in each Spanish and English, and two in French.

This book is a worthy homage to a great botanist. It would doubtless have grown to multiple size had contribution not been limited to invited authors. All others, including myself, will want to join in conveying their best wishes to their illustrious colleague in Barcelona. W.G.

Symposium proceedings

- 44. Pertti UOTILA (ed.). – Chorological problems in the European flora.** Proceedings of the VIII Meeting of the Committee for Mapping the Flora of Europe, Helsinki, Finland, 8-10 August 1997. [*Acta botanica fennica*, 162]. – Finnish Zoological and Botanical Publishing Board, Helsinki, 1999. [2] + XIV + 196 pages, black-and-white and colour illustrations, hard cover. Price: FIM 440.

Most prominent among the 31 papers of this symposium volume are the contributions placed at either end. At the beginning three papers report on the *Atlas florae europaeae (AFE)* project as a whole, where the most important news are: *AFE* goes digital (with examples of what can be made out of the electronically stored data when a software package like *WORLDMAP* is used), and where the reassuring message is: *AFE* carries on full speed, no interruption can and will be allowed irrespective of changes in the editorial team. At the end, half a dozen papers are devoted to the taxonomy of rosaceous genera, *Rubus*, *Rosa*, and *Alchemilla* in particular, well known to present arduous problems of treatment, as *Rosaceae* are the subject of vol. 13 of *AFE*, now in preparation.

The intermediate portion of the book deals first with mapping projects (or problems) of specific countries or areas (Iberian Peninsula, Britain, Germany, Poland, Finland, Friuli-Venezia Giulia in Italy, Slovenia, Romania, W. Ukraine and the Crimea, European Russia), then with methodological approaches (e.g. Barthlott & al.'s world map of biodiversity), phytogeographical aspects, and stray groups (including two papers on Mediterranean orchids).

On the whole, a well edited and elegantly produced contribution to Euro-Mediterranean plant chorology, that provides much pleasant and instructive reading. W.G.

- 45. [Julia PÉREZ DE PAZ (ed.).] – [Actas del 9 Simposio de Palinología** promovido por la Asociación de Palinólogos de Lengua Española en Las Palmas de Gran Canaria, del 30 de Noviembre al 4 de Diciembre de 1992.] [pp. 4-296 in:] *Botanica macaronésica*, 23. – Ediciones del Cabildo Insular de Gran Canaria, Las Palmas de Gran Canaria, 1998. 315 pages, black-and-white illustrations, 4 folded and paged insets, paper.

Volume 23 of *Botanica macaronésica* is almost entirely devoted to palynological contributions that were presented almost six years earlier at an APLE symposium held in Las Palmas de Gran Canaria. Except for two introductory general papers – by Lugardon of ultrastructure of Pteridophyte spore walls, in French; Blackmore on "the impact of palynology on taxonomy", in English – all of the 24 papers included are written in Spanish, with a summary in English.

Five sections are recognised. The first is devoted to the study of modern pollen ("actupalynology") and includes 5 papers, the two just mentioned and one each on Iberian umbels, Macaronesian *Echium*, and ferns from Tenerife. There are 4 papers on aeropalynology, 1 on pollen biology, 3 on melittopalynology, and 10 on palaeopalynology, ranging from Carboniferous spores to the pollen analysis of Holocene palaeo-soils. Four items at the end belong, not to the afore-mentioned symposium but to the ongoing series "Notas corológico-taxonómicas de la flora macaronésica" (Nos 82-85). W.G.

- 46. G. ALZIAR & P. EWALD (ed.). – Actes du Colloque "Plantes introduites – plantes envahissantes"** tenu du 8 au 11 octobre 1996 à Nice dans le cadre des 8^e Rencontres de l'Agence Régionale pour l'Environnement Région Provence-Alpes-Côte d'Azur.. [*Biocosme mésogéen*, 15(1)]. – Ville de Nice, Muséum d'Histoire naturelle & Jardin botanique, Nice, 1998. [5] + 174 pages, black-and-white illustrations, paper.

The concern about invasive aliens is relatively new, although the phenomenon goes back to early historical and even prehistorical times. It is at present shared by environmentalists, agronomists, foresters, and many others. The fact that a small but choice symposium has been con-

vened in southern France to deal with it bears witness of this trend.

A special issue of *Biocosme mésogéen* is devoted to this symposium's conclusions. Most appropriately, it begins on a critical note: an alien plant, even if naturalised, is not necessarily an evil to be fought. It is ludicrous to protect the vanishing weed flora of our corn fields as part of our threatened national biodiversity while at the same time bedevilling the inoffensive though successful newcomer. Lambinon, the author, is careful to exclude the real invaders when eventually concluding that, other things being equal, a xenophyte of remote provenance is by far preferable to the introduction of a foreign strain or genotype of a species of the native flora.

The 8 other papers here presented all deal with the negative aspects of plant invasions. They include two case studies (*Acacia dealbata* invading and displacing native woodland communities; and the green alga *Caulerpa taxifolia* monopolising vast areas of sea bottom off the coast of S. France) as well as several regional surveys in France (coastal ponds along the Atlantic coast, Landes Department; Bouches-du-Rhône; Corsica) and Italy (national territory and Sardinia). Island biogeographers will be interested in an impact assessment of breeding colonies of seagulls on islet floras, near Marseille.

The symposium participants carried a resolution focusing the attention of all concerned on the problem and (perhaps rashly) asking for legal and administrative action, not only to monitor the phenomenon but to prevent new, potentially harmful introductions. In an appendix, Annie Aboucaya has synthesised the feedback from a relevant questionnaire by drawing up three lists, valid for the Mediterranean parts of France: the first of ascertained invasive aliens (36 species of flowering plants, 3 sea-weeds), the second of potentially obnoxious invaders (46 + 3), the third a "waiting list" (61 species). There is a second list (105 species) of the invasive aliens of Italy on pp. 81-82, and a third with non-native trees used in reforestation in Sardinia (36 species, pp. 105-106).

When comparing these lists one will find that they differ greatly, and one feels that their disparity reflects, not only the natural differences, climatic and historical, of the areas concerned but also the application of widely incon-

sistent criteria. There is scope for far more research on the subject, and an urgent need for more and better co-ordinated information. The symposium at Nizza has been an important step in the right direction, but only a first, preliminary such step. W.G.

47. [Mar(ia Antoni)etta COLASANTE (ed.).] – **Iris and Iridaceae: biodiversity & systematics.** An international conference organised by the University of Rome "La Sapienza", the Società Italiana dell'Iris of Florence, the Linnean Society of London, the Systematics Association. Orto Botanico, Rome, 8-10(11) July 1998. **Abstracts.** – Linnean Society of London, 1998. [33] sheets, stapled.

My copy of this abstract pamphlet is from a kind of mopped-up congress document folder, also including some other documents (provisional and final programme, one-page conference report). The symposium included two days of lectures, with 10 speakers on each, and an exhibit of c. 20 posters. The first day was apparently devoted to general subjects concerning the whole family (overall and molecular phylogeny, phytochemistry, leaf anatomy, conservation, germination) as well as to *Crocus*, whereas the second day concerned the genus *Iris* only.

The one-page abstracts, each on a separate sheet, concern 20 lectures (18 actually given, 2 replaced by others) and 11 of the posters. They hopefully foreshadow publication of the symposium proceedings in full – which, judging from titles and contents, would be most rewarding to read. W.G.

48. E. BOZILOVA & S. TONKOV (ed.). – **Advances in Holocene palaeoecology in Bulgaria.** [Contributions by Bulgarian palynologists at a symposium on the history of flora and vegetation on 22-25 July 1993 at Borovetz, Bulgaria]. – Pensoft, Sofia & Moscow, 1995 (ISBN 954-642-005-0). v + 95 pages, black-and-white illustrations, paper. Price: DM 20.

In parallel with the second half of the VII OPTIMA Meeting in Borovec, and in the same tourist resort, a second, completely independent meeting took place that was not even mentioned

in the printed programme (although many OPTIMA members may have become aware of it through announcements posted on the notice board): a Symposium on the History of Flora and Vegetation, organised by the Laboratory of Palynology, Department of Botany, of the St Klement Ohridski State University in Sofija as an inter-Congress event of the INQUA Commission for the Study of the Holocene. The present booklet, printed in 1995 in time for being presented at INQUA XIV in Berlin, comprises the Symposium's published proceedings: 6 papers by Bulgarian palaeobotanists on the Late Glacial and Post-Glacial flora and vegetation of Bulgaria.

The oldest sediments studied, three deep-sea cores from the western Black Sea, off the Bulgarian coast, date back to 11,000 years B.P., but most of the data clearly belong in the Holocene period. With the single exception just mentioned, the samples were taken from peat bogs or lake sediments and concern pollen grains for the most part, with occasional macro-remains (leaves and seeds) in addition. The results document the horizontal and vertical spread of woodland, and changes in its composition, first under natural conditions in the Atlantic phase, then under the more and more prominent influence of Man.

A survey paper, based on several detailed analyses published previously, deals with the history of beech woods on the Bulgarian territory. The occurrence of such woods is documented for the Eemian interglacial period already, and relic stands survived the last glaciation in several refugial pockets in the mountainous areas of southern Bulgaria. These data corroborate the role of the southern Balkan Peninsula as survival and source area for many of today's forest trees, from where they spread over central and boreal Europe at the end of the ice ages. W.G.

49. Ioannes TSEKOS & Michael MOUSTAKAS (ed.). – Progress in botanical research. Proceedings of the 1st Balkan Botanical Congress. – Kluwer Academic Publishers, Dordrecht, 1998. XVI + 632 pages, black-and-white illustrations, hard cover.

If you have a good memory you will perhaps start wondering: First Balkan Botanical Congress? Wasn't there another such congress already, years ago? Well, there was – and yet there wasn't. What you had in the back of your mind was the First International Symposium on

Balkan Flora and Vegetation that was held in Varna, Bulgaria, in June 1973 and whose proceedings were published in Sofija in 1975 (see OPTIMA Newsletter 2: 38-39. 1975). The organisers of the new Congress had a much broader subject than just merely flora and vegetation studies in mind, and wanted to address all Balkan botanists, not merely those working on their native country's plants; so, understandably, they changed the name and restarted the numbering. The success of the Congress was to prove them right.

The index to the proceedings volume lists no less than 141 contributions (even more had been presented), grouped under 6 different headings. The grouping is not ideal. Few botanists will find the items of their special field under a single heading, nor will they be interested in all items of any one group. The 41 subjects treated under the first heading, "Taxonomy, geobotany and evolution", range from palaeopalynology through reproductive biology and pollination ecology, phenology, morphology, chorology, geobotany and vegetation sciences, floristics and taxonomy, to general evolutionary studies and the history of botanical exploration. At the low end of the scale, there is what you may call botanical chat, a completely unreferenced note on some new or curious rarities in the Peloponnesus.

While paper and binding are fine, the publisher has otherwise done a poor job: varying type sizes, lack of consistent layout, and erratic presence of abstracts irritate the reader. Worse: in most cases, the space allotted to each paper is insufficient to tell a coherent story and mention all relevant facts. W.G.

50. Anonymous (ed.). – Ellênikê Botanikê Etaireia. Biologikê Etaireia Kuprou. 6^o Epistêmoniko Sunedrio upo tèn aigida tou Upourgeiou Paideias kai Politismou Kuprou. Praktika. 6-11 Apriliou 1996, Paralimni-Kupros. [Hellenic Botanical Society. Biological Society of Cyprus. 6th Botanical Scientific Conference under the auspices of the Ministry of Education and Culture of Cyprus. Proceedings. 5[sic]-11 April 1996, Paralimni-Cyprus]. – Ellênikê Botanikê Etaireia [s.l., s.d.]. 382 + [2] pages, black-and-white illustrations, paper.

The sixth biennial meeting of the Greek Botanical Society had taken place in 1994 in Delphi (see OPTIMA Newsletter 31: (25), 1997). This time the Society went overseas and joined forces with their Cypriot colleagues.

As there is no table of contents nor any clear structure, the book is difficult to use. Following 32 pages of introductory matter, including obituary notes (on Ganiatsas, Anagnostidis, Gavalas, and Marakis) there are a large, indefinite number of short research papers on various botanical subjects, all in Greek but almost invariably with an English summary, reproduced photomechanically from typescript. Paper, print and illustration are of surprisingly good quality, and so, one assumes, are the contents.

A fact of note is that the Meeting selected a national flower for Cyprus: *Cyclamen cyprium*, illustrated in colour inside the back cover. W.G.