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Directory of Bryophyte Collecting

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Increasing conservation of bryophytes by law and for regulations establishment of collecting make it difficult for the bryologist to overlook local conditions, especially on trips in foreign countries. The „case“ of a colleague being convicted of illegal collecting in New Zealand (Bryol. Times 75: 4, 1993) demonstrates how problematical it can be to collect in foreign countries without being informed about the local laws. Although due attention has had to be paid in some tropical countries, it has been difficult to really know exactly which countries had regulations and what kind they are. In a time of increasing tourism, in which holiday trips are likely used also for collecting, and increasing initiatives to explore the floras of tropical countries, it would be very useful to have information on whether and which bryophytes are protected in a certain country, whether in national forests, nature preserves or elsewhere, whether collecting permits are necessary, and

whether special procedures for export are required.

Although this information is needed more badly by zoologists and flowering plant botanists, I do not know of any summarize of such information.

For that reason I proposed a “Red Book on Bryophyte Collecting” (Bryol. Times 79: 8, 1994). This suggestion was supported by the International Association of Bryologists and has been approved by the Bryology Specialist Group of the IUCN Species Survival Group. For the compilation of data, a questionnaire was set up and mailed to a bryologist in all countries in which bryologists were present in spring 1995. These are about 50 from about 160 countries of the world. In other cases, colleagues with collecting experience in countries other than their own were asked for information. However, only 30 questionnaires were returned, and also a second campagne to mail questionnaires to other bryologists from those countries lacking

data was not successful. It can be that there are in part no regulations in those countries from which the questionnaires were not returned. Therefore the idea of a book cannot be realized and the available information is compiled here instead. Nevertheless this survey is very interesting in showing whether bryophyte species are protected in some countries, how the countries react differently in this respect or in how far the countries require export or collecting permits. In some cases the bureaucratic procedures to obtain permits gain attention.

I would like to thank all colleagues mentioned in the text who contributed information. I also thank Sandi Vitt for providing the address list of the International Association of Bryologists for distributing the questionnaires, and B.J. O’Shea for correcting the English text and other suggestions.

The information is given according to the questionnaire in the following sequence:

COUNTRY:

Informant:

1. Protection

Is any group of bryophytes (family, genus, species) protected by law in the country?

2. Collecting

Is a collecting permit required to collect bryophytes in the country? From which authorities can permits be applied. What is necessary to obtain a permit (e.g., description of the project, curriculum vitae, list of publications, address of local counterpart, number and size of collections, fees)?

3. Export

Are there any regulations for export?

ARGENTINA

G. Hässel de Menéndez, Museo Argentino de Ciencias Naturales, Av. A. Gallardo 470, Buenos Aires.

1. -

2. Permits are required for nature reserves and national parks. Applications with a description of the project, the address of a local counterpart and the number of collections must be directed to Administracion de Parques, Avda. Sta. Fe 690, Buenos Aires, Argentina. A complete set of duplicate specimens is expected to be sent to an Argentinian herbarium.

3. -

AUSTRALIA

H. Streimann, National Botanic Gardens, P.O.Box 158, Canberra ACT 2601

1. -

2. A permit is required for collecting on publicly owned land, nature reserves, state forests and state parks. A „Guide to collecting requirements for Australian terrestrial flora and fauna“ can be obtained from Bureau of Flora and Fauna, G.P.O. Box 1383, Canberra A.C.T. 2601, in which details of the application are given. Applications have to be addressed either to the authorities of the respective territory or the national parks administration. Addresses are given in the guide cited above.

3. Import and export of specimens across state and territory boundaries and overseas require permits. For details see the guide listed above. It is best to work

through a herbarium which already holds the necessary permits. It must be noted that type specimens must remain or be returned to the country. If one does not work through a herbarium, then one has to apply for an export permit from the Australian Nature Conservation Agency. It is strongly suggested that visitors work with the aid of colleagues in herbaria.

AUSTRIA

Herbert Köckinger, Institut für Botanik der Karl-Franzens-Universität, Holteigasse 6, A-8010 Graz

1. No bryophytes are protected. Collecting of *Sphagnum* is allowed for scientific purposes but not for commercial purposes.

2. Permits are required for nature reserves. Since nature conservation is a matter of the federal states of Austria, all regulations are made by these states and consequently the permits must be applied from the nature conservancy offices of the states. Addresses can be obtained on request.

3. There are no export regulations.

BELGIUM

Dr. Herman Stieperaere, Nationale Plantentuin, Domein van Bouchout, B 1860 Meise, Belgium.

1. No species of *Sphagnum* may be collected for industrial and commercial purposes.

2. Collecting permits are required for nature reserves but not outside or in national parks. Nature reserves can be state reserves but also privately owned. Applications for permits for private reserves depend on the owner. There are many different owners, some of which own only one reserve. Only the most important are cited here. Furthermore, permits must be applied for from different institutions depending on which region of the country the nature reserve is situated in.

Flemish region (Dutch speaking, English and French as second language): State reserves: Administratie Milieu-, Natuur-, Land- en Waterbeheer, Afdeling Natuur, attn. Ir. S. TYS, Belliardstraat 14-18, B-1040 Brussel, tel. (02) 5073067, fax (02)5073065.

Natuurreservaten VZW, Koninklijke

Sint Mariastraat 105, B 1030 Brussel, tel. (02) 2454300, fax (02)5073065.

De Wielewaal, Koninklijke Vereniging voor Vogel- en Natuurstudie, Graatakker 11, B 2300 Turnhout, tel. (014)412252, fax (014)439651 (closed on monday).

Walloon region (French speaking, second language English): State reserves: Service de la Conservation de la Nature et des Espaces Verts, Promidrap II, 15 Avenue Prince de Liège, 5100 Jambes, tel. (081)325630, fax (081)325344.

Private reserves: Réserves Naturelles RNOB, 105, rue Royale-Sainte-Marie, B 1030 Bruxelles, tel. (02)2455500, fax (02)2453933.

Ardenne et Gaume, 8, rue des Croisiers, B 5000 Namur, tel. and fax (0)81/224765 or (0) 81/622281.

Region of Bruxelles (French and Dutch speaking, second language English): all information from Institut Bruxellois pour la Gestion de l'Environnement, Gulledele 100, B 1200 Bruxelles, tel. (02) 7757511, fax (02)7757611.

3. -

BRAZIL

Sandra Regina Visnadi, Instituto e Botanica, Caixa Postal 4005, 01061-970 Sao Paulo SP

1. -

2. If a foreign bryologist wants to collect in Brazil, it is necessary to contact IBAMA (Instituto Brasileiro de meio Ambiente e dos Recursos Naturais Renováveis, SAIN Av. L4 Norte 8 Ed. Sede, DIRCOL-Diretoria de Controle e Fiscalização, CEP 70800-200 Brasília-DF, Tel. (061) 316-1212, Fax (061) 224-5206) and also CNPq - Conselho Nacional de Desenvolvimento Científico e Tecnológico, DPE - Diretoria de Programas Especiais, Cooperação Internacional, SEP 507 Bloco „B“ - Ed. Sede CNPq - 30. andar, CEP 70740-901 Brasília-DF. Tel. (061) 348-9449 or - 9440, Fax (061) 274-1950. Information has to be obtained from these institutions. The rules and requirements by IBAMA are given in Portaria 332, dated March 13., 1990, the rules and requirements by CNPq are given in the booklet „Cooperação Internacional/Expedição Científica“ together with the relevant

legislation (Decreto no. 98.830 dated Jan. 15. 1990 and Portaria no. 55, dated March 14., 1990, of the Ministério da Ciência e Tecnologia). The information is in Portuguese! A foreign scientist can collect in Brazil only together with a Brazilian counterpart! There are regulations in general and specific regulations for nature reserves and national parks, which must be observed.

3. Export regulations are given in Portaria 332, dated March 13., 1990 and are cited in the CNPq booklet.

CANADA

Robert Gauthier, Herbar Louis-Marie, Pavillon C.-E. Marchand, Université Laval, Québec, Canada G1K 7P4. The information concerns only Québec.

1. -

2. Collecting is not allowed in Ecological reserves. Permits are required for provincial and National parks. Applications for collecting in Provincial Parks have to be addressed to Ministère de l'Environnement et de la Faune, Direction du Plein-Air et des Parcs, 150 boul. René-Lévesque est, Québec, G1R 4Y1, for National Parks to: Parc Canada, Direction des Ressources naturelles, Edifice Jules Léger, 25 rue Eddy, Hull QC K1A 0M5.

3. There are no export regulations.

CAPE VERDE

Wolfram Lobin, Botanisches Institut, Meckenheimer Allee 170, 53115 Bonn, Germany.

So far there are no regulations for collecting plants on the Cape Verde Islands.

CHINA (THE PEOPLE'S REPUBLIC OF CHINA)

Tong Cao, Institute of Applied Ecology, Academia Sinica, Shenyang, Liaoning 110015.

1. -

2. Permission of the local government is required for collecting plants in China, especially in nature reserves and national parks. A contact with the Dept. of Nature Conservation of the Forestry Ministry is recommended through the host institution. In nature reserves, an entrance fee as well as a fee for each specimen has to be paid.

3. A plant inspection is required by the local custom office before the specimens can be mailed. A certificate, also issued by the local custom, is needed to bring specimens through the customs e.g. at airports. The host institution will help with this procedure.

CZECHIA

Dr. Ivan Novotny, Department of Botany, Moravian Museum, Preslova 2, CZ 602 00 Brno.

1. No bryophytes are protected.

2. Collecting permits are generally not required except for nature reserves and national parks. Collecting permits for reserves and national parks must be applied for from Ministry of MZP, Vršovická 65, Praha 10 - Vinohrady, CZ-100 00 tel. 02/6712411, Fax 02/6731 0308.

3. Collections larger than 50 specimens must be accompanied by a declaration by one of the following institutions: Národní muzeum Praha, Moravské zemské muzeum Brno, Slezské zemské muzeum Opava, Jihočeské muzeum České Budějovice, Západočeské muzeum Plzeň, Regionální muzeum Teplice, Severočeské muzeum Liberec, Muzeum východních Čech Hradec Králové, Východočeské muzeum Pardubice, Vlastivedné muzeum Olomouc, Stredočeské muzeum Roztoky u Prahy.

DENMARK

Karen Thinesgaard, Botanical Institute, University of Copenhagen, Gothersgade 140, DK 1123 Copenhagen K.

1. -

2. In areas owned by the state of Denmark, collection of bryophytes is legal if accessible according to the „National Conservancy Act“ (Naturbeskyttelsesloven). For collecting on private ground, a permit should be obtained from the landowner. All sorts of plants are protected in nature reserves. Collecting permits for nature reserves can be obtained from the owner or the protection authorities (the various counties or whatever is specified in the conservation declaration of each site). Collecting in Greenland needs permission by the Committee of Scientific Work in Greenland. Collecting in National Parks in NE-Greenland is especially restricted.

3. There are no export regulations. Only in the case that the importing country requires a health certificate, the Danish authorities (Plantedirektoratet, Skovbrynet 20, 1800 Lyngby) will control the dried specimens.

EQUATORIAL GUINEA (INCL. FERNANDO PO)

F. Müller, Institut für Botanik, Technische Universität Dresden, Mommsenstr. 13, D 01062 Dresden

1. No bryophytes are protected.

2. Officially, no permit is required. However, to avoid difficulties, application for a permit is recommended. For travels outside the capital Malabo, permits are necessary for all villages to be visited. Permits can be applied for from the ministry of tourism, Malabo, Calle de Acecio Mune. Travel permits are obtainable from the police departments of the districts.

3. An export permit is recommended in conjunction with the collecting permit, since all luggage is carefully checked at the departure and the export of plants may raise difficulties without official paper.

ESTONIA

Nele Ingerpuu, Institute of Zoology and Botany, Vanemuise Str. 21, EE 2400 Tartu, Fax (372 7)43 34 72, e-mail nele@dbio.ut.ee

1. 24 species of bryophytes are under state protection and collecting and damaging of these species is prohibited:

Anastrophyllum hellerianum, *Bazzania trilobata*, *Porella cordaeana*, *Sphagnum lindbergii*, *Andreaea rupestris*, *Buxbaumia viridis*, *Octodiceras fontanum*, *Dicranum viride*, *Saelania glaucescens*, *Schistidium maritimum*, *Fontinalis squamosa*, *Bartamia pomiformis*, *Dichelyma falcatum*, *Pterogonium gracile*, *Neckera crispa*, *Thamnobryum alopecurum*, *Anomodon rugelii*, *Palustriella decipiens*, *Calliargon megalophyllum*, *Brachythecium turgidum*, *Rhynchostegium murale*, *Plagiothecium undulatum*, *Leucobryum glaucum*, *Antitrichia curtipendula*.

2. Collecting in all nature reserves and national parks is prohibited. Permits for collecting in nature reserves must be

applied from the Ministry of Environment, Toompuietee 24, EE 0100 Tallinn, Estonia.

3. For export, a permit is required from the State Quarantine Inspection, Lai Str. 11, Tallinn, phone (22)441716. The permit is issued the same day and valid for 15 days.

FINLAND

Orvo Vitikainen, Botanical Museum (Mycology), P.O.Box 47, FIN-00014 Helsinki Univ.

1. Protected by law are:

Buxbaumia viridis, *Cephalozia macounii*, *Cynodontium suecicum*, *Dicelyma capillaceum*, *Dicranum viride*, *Limprichtia vernicosa*, *Meesia longisetula*.

2. Permits are required (a) from the land owner in the case of private ground (b) from the relevant authorities in the case of natural reserves or national parks. Applications for collecting have to be addressed depending on the proprietary relationship of the area either to Finnish Forest and Park Service, Park Protection, P.O. Box 94, FIN 01301 Vantaa or Finnish Forest Research Institute, Research Forest Service, P.O.Box 18, FIN 01301 Vantaa. Permissions to collect species protected by law are allowed by: Ministry of the Environment, Nature Conservation Office, P.O. Box 399, FIN-00012 HELSINKI

Documents needed: Description of the project; address of local counterpart; number and size of collections.

3. No special export regulations, except for CITES.

GERMANY

J.-P. Frahm, Botanisches Institut der Universität, Meckenheimer Allee 170, D 53115 Bonn.

1. All species of the genera *Dicranum*, *Sphagnum*, *Leucobryum*, and *Rhytidadelphus* are protected by law. It is not even allowed to possess specimens of these species which are collected after 1988. If they are sold (e.g. for gardening, decorating etc.), the origin of the plants outside Germany must be confirmed.

2. Collecting of bryophytes is generally allowed except for private ground

(only with the permit of the owner) and nature reserves and national parks, where a permit is necessary. Depending on the federal status of Germany, permits to collect organisms in nature reserves and national parks must be obtained from the local „Untere Landschaftsbehörde“. The permit is given in connection with other regulations (allowing access by car or to leave the trails, but also sometimes not to collect during weekends).

3. There are no regulations for export. If protected plants are being exported, their origin in other countries must be confirmed.

GREAT BRITAIN

Nick Hodgetts, Joint Nature Conservation Committee, Monkstone House, City Road, Peterborough PE1 1JY

1. All plants including bryophytes are protected from being "intentionally uprooted" by unauthorized people. "Uproot" means "dig up or otherwise remove", "unauthorized" means "without permission of the landowner". In practice, this is seldom a problem in bryophyte collecting. A further 33 bryophyte species are listed on Schedule 8 of the Wildlife & Countryside Act (1981).

Mosses: *Acaulon triquetrum*, *Barbula cordata*, *Barbula glauca*, *Bartramia stricta*, *Bryum mamillatum*, *B. schleicheri*, *Buxbaumia viridis*, *Cryphaea lamyana*, *Cyclodictyon laetevirens*, *Ditrichum cornubicum*, *Drepanocladus vernicosus*, *Grimmia unicolor*, *Hypnum vaucheri*, *Micromitrium tenerum*, *Mielichhoferia mielichhoferi*, *Orthotrichum obtusifolium*, *Plagiothecium piliferum*, *Rhynchostegium rotundifolium*, *Saelania glaucescens*, *Scorpidium turgescens*, *Sphagnum balticum*, *Thamnobryum angustifolium*, *Zygodon forsteri*, *Z. gracilis*. Liverworts: *Adelanthus lindenbergianus*, *Geocalyx graveolens*, *Gymnomitrium apiculatum*, *Jamesoniella undulifolia*, *Leiocolea rutheana*, *Marsipella profunda*, *Petalophyllum ralfsii*, *Riccia bifurca*, *Southbya nigrella*. The list is subject to a review every 5 years. The next review is in 1996. Northern Ireland has a separate list of protected species.

2. A permit is needed to collect the 33 bryophytes on schedule 8: a separate permit is required for each species. No separate permit is needed in protected areas, just verbal/written permission of the landowner/authority. Permits can be applied for:

in England from Licensing section, English Nature, Northminster House, Peterborough PE1 1UA

in Scotland from International & Biodiversity Branch, Scottish Natural Heritage, 2 Anderson Place, Edinburgh EM6 5NP

in Wales from Licensing, Countryside Council for Wales, Plas Penrhos, Fford Penrhos, Bangor, Gwynedd LL57 2LQ.

No fees are required but the names of two referees must be given.

3. Export regulations exist only for Schedule 8 plants

HONG KONG

M.L. So, Biology Dept., Baptist University, 224 Waterloo Rd., Hong Kong

1. Bryophytes are not yet protected.

2. For collecting, a permit is required. The permit (with indication of the collecting purpose) must be applied for from The Director, Agriculture and Fisheries dept., Canton Road Government Offices, 393 Canto Rd., 12th floor, Kowloon, Hong Kong.

3. There are no export regulations.

HUNGARY

Sandor Orban, Esterhazy Teachers College, Dept. of Botany, pf. 43, H 3301 Eger

1. All *Sphagnum* species are protected.

2. There are regulations for collecting in nature reserves and national parks. Permits for nature reserves must be applied for from National Authority for Nature Conservation, Költö u. 21, H 1121 Budapest. Those for national Parks must be applied for from the park administration of the according national park: Fertő-Hanság National Park, Rév.-Kócsagvár, H 9435 Sarród; Bükk National Park, Sándor u. 2, H 3300 Eger; Aggtelek National Park, Tengerszem sétény 1, H 3758 Josvafő; Kiskunság National Park, Liszt F. u. 19, H 6000 Kecskemét; Hortobágy Nemzeti Park,

Sumen u.2, H 4024 Debrecen. A description of the project is required.

3. A plant sanitary certificate is needed from the concerned Country Plant Sanitary Station for the export of bryophyte specimens.

INDIA

A.K. Asthana, Bryology Laboratory, National Botanical Institute, Lucknow 226001

1. -

2. A general collecting permit is required, collecting in nature reserves and national parks require additional permits. Applications for general collecting with the description of the project, curriculum vitae, list of publications, address of local counterpart and number and size of collections must be addressed to the Ministry of Environment & Forests, Paryavaran Bhawan, CGO Complex, Lodi Road, New Delhi 110003. Permits for nature reserves and national parks will be obtained from the Divisional Forest Officer (DFO), or the director of the area concerned.

3. Export of specimens requires permits from the Ministry of Foreign Exchange, the Ministry of Environment and Forest, a quarantine (fumigation), a customs declaration, a plant inspection and an assessment of commercial or academic value.

JAPAN

Zen Iwatsuki, Hattori Botanical Laboratory, Okazaki Branch, 10-3 Mutsunashin-machi, Okazaki-shi, Aichi-ken 444.

1. *Sphagnum* species are protected by most prefectural governments.

2. To collect bryophytes in specially protected areas, a permit is required. No permit is needed for National Parks. For specially protected areas, a permit should be applied for from the Environment Agency. Objectives, names of bryophytes, quantity, method of collecting, place of collecting, etc. should be described in the application.

3. -

KENYA

Dr. Min S. Chuah-Petiot, Botany Dept., University of Nairobi, Box 14576, Nairobi, Kenya

1. Bryophytes are not yet protected but plans are already made.

2. Generally, a research permit must be obtained from the Office of the President. Forms are to be filled and fees to be paid. Second, a collecting permit must be obtained from respective ministries depending on localities. No collecting permit is given without a research permit. Research permits can be applied and paid for before coming to Kenya from a Kenyan embassy and asked for in Kenya from the Office of the President bringing along proofs of the application and payment. Before the permit is handed out, which can take time, if ever, a temporary document allowing research can be given. Since research permits often take a very long time, it is more advisable to be affiliated to a researcher in the country's institution in terms of a joint project. Research permits must be applied for from the Office of the President. It costs about US\$ 250. Collecting permits for nature reserves can be applied from the Ministry of Environment and Natural Resources, for national parks from Kenya Wildlife Service.

3. For export, a clearance is necessary from Kenya Wildlife Service, Cites Licensing Officer, and a Phytosanitary Certificate from the National Agricultural Laboratories, Plant Protection Unit is required.

LATVIA

Baila Bambe

1. Of 485 bryophyte species found in Latvia, 203 (42%) are included in the "List of Rare and Protected Bryophytes". The list is not yet confirmed by the government (Ministry of Environmental Protection and Regional Development).

2. Collecting permits are only required for nature reserves.. They can be obtained from the local administration. For details, Ilona Lodzina, Ministry of Environmental Protection and Regional Development, Peldu 25, Riga, Latvia LV-1494, can be contacted. Tel. +371-2-213583, Fax +371-7-820442.

3. There are no export regulations.

LITHUANIA

I. Jukonienė, Laboratory of Flora and Geobotany, Institute of Botany, Zaliužė Str. 47, LT-2021 Vilnius.

1. The species *Bryum schleicheri*, *Ctenidium molluscum*, *Drepanocladus lycopodioides*, *Fontinalis dalecarlica*, *Pogonatum nanum*, *Ricciocarpos natans*, *Sphagnum molle*, *S. subfulvum*, *S. subnitens*, *Thuidium minutulum*, and *Trichocolea tomentella* are included in the Red Data Book of Lithuania.

2. Permits are required to collect bryophytes of the Red Data Book and in nature reserves and national parks. Permits to collect protected bryophyte species must be applied for from the Environmental Protection Ministry, Juozapavicius 9, Vilnius 2600, tel. 72-58-13. Permits to collect bryophytes in nature reserves and national parks can be obtained from the relevant authorities, indicating place, number and size of collection. For details contact the Environmental Protection Ministry (address above).

3. For export of specimens, a phytosanitary certificate from the State Plant Quarantine Inspection of the republic of Lithuania (Kareiviu 11, Vilnius, tel. 763735) is required.

LUXEMBOURG

Jean Werner, 32, rue Michel Rodange, L 7248 Bereldange

1. Protected are:

- all species of *Sphagnum*

- all bryophytes growing on sandstone rock in the Larger Petite Suisse area.

2. Collecting is not allowed in natural reserves. Collection in natural reserves requires a permit, which can be obtained from Ministre de l'environnement, 5a, rue de Prague, Luxembourg.

3. There are no export regulations.

MEXICO

Dr. Claudio Delgadillo M., Dept. de Botanica, Inst. de Biologia, Universidad Nacional, Apartado Postal 70-233, 04510 Mexico, D.F., Mexico

1. The following bryophyte species are protected: *Acritodon nephophilus*, *Astomiopsis exserta*, *Bryocephospora mexicana*, *Callicostella mexicana*, *Hypnodontopsis mexicana*, *Jaffuelobryum arsenei*.

2. Collecting permits apply to all plant groups and all areas in Mexico. Applications for collecting permits should be sent to the respective embassy in Mexico applying for diplomatic certification of the documents. The embassy will turn the documents to the Foreign Ministry which, in return, will send it to: secretario de Desarrollo Urbano y Ecología, Av. Constituyentes No. 947, Edificio B, Col. Belen de las Flores, 01110 México, D.F. The application must be submitted with the following:

1. Supporting letter from the Chairman, Director or Head of the scientist's home institution.

2. A letter indicating the intention to hire and pay the expenses of a Mexican technician while in the field.

3. Supporting letter from a Mexican scientist.

4. Curriculum Vitae, including two passport photographs of the applicant.

5. Research project justifying and establishing reasons for collecting.

6. The proposed research project should include:

- vernacular and scientific names and number of specimens/species to be collected.
- collecting methodology with specimen number.
- localities where the research shall be conducted.
- scheduled activities.

7. International check for N\$ 2423.00 approx. 350 US\$)

The regulations were valid in autumn 1995 but are subject of change.

3. In general, any individual or institution must request an export permit. However, individuals are usually discouraged because there is no clear procedure to obtain it; it would be recommended to contact a local institution and let this handle the entire procedure.

NAMIBIA

Coleen Mannheimer, National Herbarium of Namibia, Private Bag 13184, Windhoek.

1. -

2. Permits to collect biological specimens and/or to conduct research on fauna and flora throughout Namibia, and

to conduct research on any subject within Namibian parks are granted upon approval of a suitable project proposal. The permits are issued by the Ministry of Wildlife, Conservation and Tourism, Private Bag 13306, Windhoek. Applications are made on a standard form, which can be obtained from the Ministry.

3. Export permit is required. Details can be obtained from local contact persons.

NETHERLANDS

H.C. Greven, IBN/DLO, P.O. Box 23, NL 6700 AA Wageningen

1. No bryophytes are protected. In some provinces, *Leucobryum* and *Sphagnum* are protected by provincial laws. A group of bryologists has made a list of 180 taxa to be protected, and the Dutch Nature Conservancy Council has suggested the minister responsible for nature conservation, to add these taxa to the nature conservation law, up to now without success.

2. There are no regulations for collecting bryophytes in general. It is forbidden to collect bryophytes (as well as other organisms) in nature reserves and national parks. Permits to collect bryophytes in nature reserves can be obtained under strict conditions but will take time. Permits for nature reserves and national parks can be obtained from:

- Staatbosbeheer (S.B.B.)
- Provinciale Landschappen
- Nederlandse Vereniging tot Behoud van Natuurmonumenten.

In general, you are allowed to collect small portions of bryophytes in the Netherlands. However, in nature reserves one is not allowed to leave trails and to collect. Permits for access of the nature reserves outside the trails are not easily to be obtained for foreigners.

3. There are no export regulations.

NEW ZEALAND

Jessica Beever, Mt. Albert Research Centre, Private Bag 92170, Auckland, New Zealand.

1. So far, no bryophyte species is protected, but six bryophytes are listed in Category A, and 23 in Category B for Priority for Conservation Action by the

Department of Conservation, with a further 51 listed as "Species about which little information exists, but which are considered threatened". However no taxa are individually protected by law.

2. In New Zealand, collecting of any plant requires permission from the land owner or appropriate administering authority. For most reserve land, including the National Parks, Scenic Reserves, and Scientific Reserves the appropriate authority is the Department of Conservation (see 3 below). In some cases however, especially near cities, reserves are administered by local authorities, from whom collecting permits should be sought. For collecting on Department of Conservation land a permit must be sought from: The Director, Protected Species Policy Division, Department of Conservation, PO Box 10-420, Wellington NEW ZEALAND, telephone +64 4 4710726, fax +64 4 471 3076. Information required includes: what the applicant wishes to collect; where; the dates; the quantity; the purpose for which the collections are being made. Application 3 months in advance is desirable. Permits are likely to contain restrictions on quantity, a requirement for a subsequent report on findings, and the requirement that type material be lodged in a New Zealand public herbarium. For any bryologist visiting New Zealand contact with local bryologists may be helpful.

4. There are no export regulations.

NORWAY

Arne A. Frisvoll/Ingrid Angell-Petersen, The Royal Norwegian Society of Sciences and letters, Erling Skakkes gt. 47b, N 7000 Trondheim

1. No bryophyte species is protected.

2. Permits to collect plants is not needed, except for national parks and nature reserves. Permits can be obtained from the authorities in each district (Fylkesman).

3. There are no export regulations.

PANAMA

Clotilde Arrocha, Estafeta Universitaria, Centro Regional Universitario de Chiriquí, David, Chiriquí, Panama

1. No bryophytes are protected.

2. A collecting permit is required for

nature reserves and national parks, at least two weeks in advance. Permits can be applied from the Chief, Departamento de Manejo de Flora y Fauna, Instituto de Recursos Naturales Renovables (INRENARE), Apartado 2016, Paraíso, ANCON, Panamá, Rep. de Panamá, Fax (507) 2324083. The application has to include a full description of the project:

- objectives, materials and methods
- for how long you expect to stay in the country
- how much you are planning to collect
- are you planning to leave marks on localities that are expected to be revisited
- if you are looking for specific taxa, you have to give common and scientific names.

Additional requirements are:

- A letter from your institution to certify that you are a researcher.
- A brief curriculum vitae with two passport photographs.
- In the case of long term research you have to specify the persons who will stay in the country after your departure.
- Duplicates of the collections have to be given to the herbarium of the University of Panama (PMA).
- At the end of the research, the published results have to be sent in triplicate to INRENARE.

3. An export permit has to be applied for with the collecting permit. The herbarium of the University of Panama will assist in all procedures.

PHILIPPINES

Benito Tan, Farlow Herbarium, Harvard University, 20 Divinity Ave., Cambridge, Mass. 02138

1. -

2. A general collecting permit is required for foreign botanists. An additional separate permit by individual park administrations may be needed to collect within the park area. In general, a local collaborating institution can secure for the visiting foreign botanist the necessary permits to collect and send specimens outside the country through postal service. Otherwise, a permit application must be addressed to the Philippine

National Herbarium at Manila. The permit costs a small fee.

3. For export and mailing specimens, a permit is needed. The Philippine National Herbarium Office in Manila can send specimens in your behalf when asked to be the local collaborating institution for the project. As a rule, it is the Office of Parks and Wildlife of the Department of National Resources in Quezon City that issues collecting and exporting permits of plant specimens.

POLAND

Ryszard Ochrya, Instytut Botaniki PAN, Lubicz 46, PL 31-512 Kraków.

1. -

2. There are no regulations regarding collecting bryophytes in Poland. Collecting is permitted everywhere except for protected areas, where collecting any plants without special permission is forbidden. Permission for collecting bryophytes in national parks may be obtained from the directorship of a national park after presentation of a written application. The same is also true for nature reserves, and applications should be directed to the nature conservator in the relevant district. In order to obtain permission it is necessary to provide a brief application presenting the aim of study, the amount of collected plants or populations, and eventually a report of earlier study in the area (if carried out). In most national parks a fee is paid at the gate(s) directly when entering the area. In nature reserves no fee is necessary. Usually printed papers presenting results of study are required.

3. There are no special regulations for exporting collections of bryophytes in Poland. However, if a larger amount of plants is carried it is good to obtain an official statement from a recognized botanical institution indicating that carried plants are necessary for scientific investigations.

PORTUGAL

Cecília Sérgio, Museu, Laboratório e Jardim Botânico, Rua da Escola Politécnica 58, P-1294 Lisboa CODEX.

1. The species of the annexes of the European Habitats Directive 92/43 and the Bern Convention List (1990) are pro-

tected also by national law (Decreto de Biodiversidade - D.R. no. 21/95 from 21.06. 93). Collecting permits are required in general as well as for nature reserves and national parks. A collecting permit for Portugal has to be applied from Instituto da Conservação da Natureza, ICN, Rua da Lapa, 73, 1200 Lisboa, phone 3950456, 3950464. Permits for the 22 national parks must be obtained from the national park administrations. A list of addresses is available on request.

3. There are no export regulations.

PUERTO RICO

Inés Sastre-D.J., Biology Dept., University of Puerto Rico, Mayagüez Campus, Box 5000, Mayagüez, Puerto Rico 00681, U.S.A.

1. No bryophyte species are protected.

2. Collecting permits are required for national parks and nature reserves. For national parks, Federal regulations are applied for state forests and DNR regulations for nature reserves. All kind of permits can be applied from División de Permisos Forestales, Depto. de Recursos Naturales y Ambientales, Ave. Muñoz Rivera, Pda. 3 San Juan P.R., Aptdo. 5887, Pta. de Tierra, P.R. 00906. The application shall include a description of the project, and the number and size of the collection. There is a fee of \$25 per permit.

3. There are no export regulations.

SOUTH AFRICA

Dr. Sarie M. Perold, National Botanical Institute, Private Bag X101, Pretoria 0001, South Africa

1. No bryophytes are protected.

2. Permits are required for collecting on private ground from the owner and in national parks and nature reserves. For permits, the Nature Conservation Depts., Forestry Depts. and Park Boards of each of the 9 provinces (Northern and Eastern Transvaal, Gauteng, North West, KwaZulu/Natal, Northern, Western and eastern Cape, O.F.S.) and 2 countries (Lesotho and Swaziland) must be contacted.

3. For export, a phytosanitary permit may be required from the Dept. of Agriculture, Private Bag X258, Pretoria.

SPAIN

J. Muñoz, Instituto Asturiano de Taxonomía y Ecología Vegetal, Apdo. 8, E-33120 Pravia

1. *Sphagnum pylaesii* (only in Asturias), *Riccia crustata*, *Riella notarisii*, *Crossidium aberrans*, *Orthotrichum rogeri*, *Pottia pallida*, *Pterygoneuron subsessile*, *P. sampaianum* (only in Aragón).

2. Permits are required to collect protected species in the regions mentioned above and also in nature reserves and national parks. Permits for national parks can be applied from Organismo Autónomo de Parques Nacionales, c/ Gran Vía de San Francisco 4, 280005 Madrid. Applications for collecting permits in nature reserves and for collecting permits of protected plants must be addressed to the administrations of the 17 autonomic communities, in which the nature reserves are situated. Addresses can be provided on request.

3. An export permit is only required for protected species from the administration of the concerning autonomic community.

SWEDEN

Nils Cronberg

1. No bryophytes are protected by law.

2. Collections are generally possible except for nature reserves. Permission of the landowner is not necessary. It is, however, not allowed to strip extensive areas for commercial (e.g. ornamental) purposes. Regulations to collect in nature reserves vary among reserves. It is usually necessary to acquire a collecting permit from the local country administration (länstyrelsen), unit for environmental issues (naturvårdsenheten).

Collecting permits are compulsory for national parks and are in principal only given for strictly scientific collections. A permit can be acquired from the Swedish National Environmental Protection Agency, SNV, S-17185 Solna, Sweden.

3. Export of CITES-species is not allowed.

UKRAINE

V. Virchenko, Institute of Botany, Tereshchenkivska Str. 2, 252601 Kiev, Ukraine

1. Twenty-eight species of bryophytes are protected by law, which are included in the 2nd. edition of the Red Data Book of Ukraine. See also Zaverukha, B.V. 1992. On the second edition of the Red Data Book of Ukraine. Ukr. bot. journal 49: 72-80 (in Ukrainian, species names in Latin). The protected species are: *Athalamia spathysii*, *Cololejeunea rosettiana*, *Haplomitrium hookeri*, *Pleurocladula albescens*, *Scapania helvetica*, *Targionia hypophylla*, *Anoetangium handelii*, *Cinclidotus aquaticus*, *Conardia compacta*, *Desmatodon heimii*, *D. randii*, *Fissidens rufulus*, *Hookeria lucens*, *Meesia triquetra*, *Metaneckera menziesii*, *Orthothecium rufescens*, *Palamocladium euchloron*, *Plagiothecium neckeroideum*, *Pterogonium gracile*, *Ptychodium plicatum*, *Saelania glaucescens*, *Schistostega pennata*, *Sphagnum molle*, *S. subnitens*, *S. tenellum*, *S. wulfianum*, *Tayloria lingulata*, *Tortella fragilis*.

The list of protected bryophytes will be increased to accommodate the Red List of Bryophytes of Europe and other species.

2. A permit to collect bryophytes from the Red Data Book of Ukraine and in protected areas (Nature reserves, national parks) is given by the Ministry of Protection of Natural Environment and Nuclear Safety, Khreshchatyk Str. 5, 252001 Kiev. The application must be accompanied by a description of the project, address of local counterpart and number and size of collections.

3. For export, a quarantine certificate is required given by Kyiv local State Inspection of Plant Quarantine, Khreshchatyk Str. 50/b, 252001 Kiev.

VIETNAM

Le Cong Kiet, Dept. of Botany, University of Ho Chi Minh City, 227 Nguyen Van Cu, Ho Chi Minh City 5, Viet Nam

1. No bryophytes are protected.

2. Regulations exist for national parks and nature reserves. Permits must be applied for from the Ministry of Science, Technology and Environment. It has to include a description of the scientific project, which must be agreed by, or in

collaboration with, local authorities. The application will be forwarded by the local counterpart.

3. For export, a plant inspection is necessary by the Phytosanitary Services in Hai Noi or Ho Chi Minh City, a custom declaration confirmed by the local authority (provincial level) and submitted to the custom officers at the airport.

APPENDIX A: COUNTRIES IN WHICH CERTAIN BRYOPHYTES ARE PROTECTED.

Estonia, Finland, Germany, Great Britain, Hungary (Sphagnum only), Japan (only Sphagnum in most prefectures), Lithuania, Mexico, Portugal, Spain (only in parts)

APPENDIX B: COUNTRIES IN WHICH COLLECTING PERMITS ARE REQUIRED FOR NATURE PRESERVES AND NATIONAL PARKS.

Australia, All European countries, Brazil, Canada, China, Estonia, India, Japan (only nature reserves, not national parks), Latvia (only nature reserves, not national parks), Lithuania, Panama, Philippines, Puerto Rico, South Africa,

APPENDIX C: COUNTRIES, IN WHICH GENERALLY COLLECTING PERMITS MUST BE OBTAINED.

Brazil, China, Great Britain (only for protected species), Hong Kong, India, Kenya, Mexico, Namibia, Philippines, Portugal

APPENDIX D: COUNTRIES IN WHICH EXPORT REGULATIONS MUST BE CONSIDERED OR PHYTOSANITARY CONTROLS ARE REQUIRED.

Australia, China, Czech Republic, Estonia, Great Britain (only for protected species), Hungary, India, Kenya, Lithuania, Mexico, Namibia, Panama, Philippines, South Africa, Spain (only for protected species), Vietnam