Regulations for the Collection and Export of Biological Specimens from Ecuador:

Summary and Instructions for Visiting Botanists

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UPDATE: JUNE 2002

The Ecuadorian Ministry of Environment, the governmental authority which regulates and controls access to biological resources including botanical and zoological specimens, has made some changes in the regulations for research on flora and fauna of Ecuador, including collection and export of herbarium and museum specimens, effective in March 2002. The Institute of Forestry, Natural Areas, and Wildlife, INEFAN, formerly an autonomous agency that had jurisdiction over these matters, has now been absorbed into the Ministry of Environment. We prepared earlier versions of this information circular for foreign botanists who wish to collect herbarium specimens in Ecuador, with changes in 1998 and 2000. The following information is a summary of the current status of the Ministry of Environment's regulations as of March 2002 for collecting biological specimens.

In general, foreign botanists must obtain the "sponsorship" of an Ecuadorian herbarium, university, or other research institution. The Herbario Nacional del Ecuador (QCNE) a section of the Museo Ecuatoriano de Ciencias Naturales, is willing to sponsor visiting botanists who wish to collect herbarium specimens as part of their research, as long as the visitor agrees to abide by the regulations of the Ministry of Environment and to deposit at QCNE a duplicate specimen (including label) of each collection number made in Ecuador.

The new set of regulations, effective in 2002, reflect the fact that the Ministry of Environment is now "decentralized" agency, with regional field offices in various cities around the country. The research and export permits are no longer issued by the central office of the Ministry in Quito, but rather by the regional offices, depending on the province in Ecuador where the research and collecting of specimens are to be carried out. Only in the case of biological survey projects that involve collecting throughout different regions and provinces of Ecuador, will the central office of the Ministry issue the permit. This has complicated the process somewhat, for those of us who work in Quito, because the documents must now be sent via courier to the regional offices. At present, the Ministry staff in most of the regional offices are just now learning the procedures for issuing permits, so a number of follow-up phone calls may be required and even a special trip to the regional office in order to expedite the permit.

Application for a Research and Collecting Permit

The Ministry of Environment will not issue a permit for "general collecting" of herbarium or zoological specimens. The collections must be part of a research project; the research may have taxonomic, floristic, or ecological focus, but must have a clearly defined set of research objectives. The applicant for a research permit must submit the following documents to the Ministry:

- 1) A description of the research project. This should include a brief discussion of the research problem being addressed (which could be simply "the systematics of genus X" or "the flora of area Y"), the long- and short-term objectives of the research, and brief discussion of research methods to be used. The project description should also include the names of the principal and assistant investigators, their institutional affiliations, the research time table including the dates when field work is to be carried out in Ecuador. Also, where in Ecuador the research is to be carried out; if research and/or collections are to be made in any national park or other protected area, the are must be specified. The taxa to be collected, and approximate number of specimens to be collected, must be indicated, as well as the type of specimen (e.g. herbarium specimens, floral buds for chromosome counts, leaf material for DNA extraction, etc.). Lastly, the research description should indicate how the fieldwork is to be financed, and should indicate the Ecuadorian institution serving as the local sponsor of the project.
- 2) A cover letter from the visiting botanist's home institution, indicating that the investigator or student is associated with the herbarium, museum or university and is authorized to carry out the proposed research. This letter should be signed by the department head or equivalent authority and should be addressed simply to the "Ministerio del Ambiente, Ecuador". The visiting botanist may not know beforehand to which regional office the application will be submitted, so we think it best to omit the official's name and address; the QCNE herbarium will submit the application to the appropriate regional office.
- 3) The principal investigator's curriculum vitae must be submitted also, as well as
- 4) Photocopy (or scanned image) of the principal investigator's passport.
- 5) As of March 2002, the application for research and collection of biological specimens requires payment of an application fee of US \$ 20 to the Ministry of Environment. This fee is deposited in a different Ministry bank account for each regional office. The requirement for a refundable cash deposit, in addition to the permit fee, has been removed from the new regulations as of March 2002. Researchers are still required, however, to submit 5 copies of their research reports, as well as the information on biological collections made as part of the research, in digital format (Microsoft Excel) as well as digital photos taken as part of the field work. The deadline for submission of the research report is stipulated on the research permit

The Herbario Nacional del Ecuador, (QCNE) will serve as "local sponsor" to bonafide visiting botanists and students who wish to carry out research and collect herbarium specimens in Ecuador. The QCNE herbarium charges a minimum of \$ 30 (in addition to the permit fee itself) in order to process the application. Since the applications must now be submitted to regional

offices of the Ministry of Environment, additional expenses may be incurred by QCNE to obtain the permit, and these costs will be charged to the visiting researcher.

The potential applicant should first contact QCNE at the above address, indicating the general nature of the research and the approximate date of the planned visit to Ecuador. The documents indicated above should be sent to QCNE at least 60 days before the beginning of the planned field trip, along with a check for US \$ 50 payable to "CORPORACION BOTANICA ECUADENDRON". (The "Corporación Botánica is a non-governmental organization, legally chartered in February 2000, set up to support the Herbario Nacional in administrative matters and in fund-raising. The herbarium itself is a public institution and cannot receive or administer funds.) The Corporación Botánica will then pay the application fee and the Herbario Nacional will submit the application documents together with a cover letter signed by the QCNE director, indicating QCNE's sponsorship of the research permit application. QCNE will obtain the research/collecting permit from the Ministry and will have it ready for the visiting botanist upon his/her arrival in Ecuador.

If the applicant is known to us, QCNE may agree to pay the \$ 20 fee up front and then collect from the visiting botanist upon arrival; in that case the documents may be sent via e-mail to neill@ecnet.ec or qcne@q.ecua.net.ec, to avoid having to send hard copy via airmail.

Botanists who collect herbarium specimens under sponsorship of the Herbario Nacional del Ecuador should be aware that the regulations require that the first set of specimens, including unicate collections, must be deposited at QCNE. Visiting botanists should therefore make an effort not to collect unicates, but rather at least two duplicates of each specimen, in order to be able to send a specimen to their home institution.

Permit for Export of Specimens

A permit to export biological specimens obtained under a valid research permit is issued without additional cost by the regional office that issued the research permit. A Phytosanitary Certificate, issued by the Ministry of Agriculture in Quito, is also required and costs \$ 3.00. It is not necessary to submit the research report before requesting the export permit.

If the shipment includes species that are in any of the Appendices of the CITES convention (the Convention on International Trade of Endangered Species), a CITES export permit is required. All taxa of Orchidaceae are listed in CITES Appendix II, so any shipment including orchids requires a CITES permit.

The Herbario Nacional del Ecuador (QCNE) will obtain the required documents for export of herbarium specimens, for visiting botanists who obtained the collecting permit under the auspices of the QCNE herbarium. For this service, the QCNE herbarium will charge an additional fee of \$ 30. The QCNE herbarium's fee includes dispatch of the specimens to the investigator's home institution – but of course, the shipping costs must be paid by the investigator. The investigator may make arrangements for QCNE to ship the specimens and then bill the investigator for the shipping costs.

In order to apply for the export permit, QCNE must have the list of taxa in the shipment to be exported. The researcher must, therefore, send a list with the number of specimens per

family to be exported. In the case of orchids, or other taxa that require a CITES permit, the specimens should be listed by genus if possible, and better if listed by species.

The Investigator's Research Report

The investigator must submit to the Ministry of Environment, 5 hard copies of the text of the report, and also must submit, in digital format, a database with the information on the geographic location of the biological specimens collected during the research project. Also expected are digital photographs of specimens or habitat obtained as part of the fieldwork. The specimen collection data will be added to Ecuador's National Biodiversity Database, which is administered by the Ministry. The research and collection permit has a deadline for submission of the report and database – generally within one year after completion of the fieldwork

The Herbario Nacional del Ecuador, as part of its "sponsorship" of visiting botanists, will assist in submission of this information. Since digital photographs are now expected as part of the research report, the best way to send the information is to include the text of the research report, the database and the photographs on a writeable CD, and mail the CD to the QCNE herbarium in Quito. The QCNE herbarium will then print 5 paper copies of the report and submit them to the Ministry together with the CD.

The research report should be a brief but informative discussion of the investigator's field work in Ecuador, including discussion of preliminary results and indication of longer-term results, e.g. planned publications resulting from the research. The report should, if appropriate, include a brief discussion of any rare, threatened or endemic species which were studied and/or collected. Additional information which should be included if possible is a brief discussion of the investigator's observations of the conservation status of the taxa studied and of the areas visited, as well as suggestions on conservation or management of the species or areas which may be useful to the Ministry which has primary responsibility for all wildlife, native plants and natural habitats in Ecuador. The report should also include a summary of the collection data, i.e. a table showing the taxa that were collected and where they were collected.

Besides the written report, the researcher must submit the database for the specimens collected. In order to facilitate the electronic transfer of the data to Ecuador's National Biodiversity Database, the database should be sent as a Microsoft Excel file, or similar format, with at least the following fields:

- 1. Botanical family name
- 2. Genus
- 3. Specific epithet (excluding author)
- 4. Author name of taxon
- 5. Collector's name
- 6. Collection number
- 7. Province
- 8. Canton (political unit below province; this may be omitted if unknown)
- 9. Detailed locality description
- 10. Latitude
- 11. Longitude
- 11. Altitude
- 12. Collection Date

- 13. Name of specialist who determined the specimen
- 14. Acronyms of herbaria where duplicates are held, including QCNE and the investigator's home instution.

Other fields in the database are optional, such as vernacular name and description of the specimen as it appears on the label. The collections should be identified as well as possible, but if a specimen is not identified to genus or species, that field may be left blank.

The investigator must also send the herbarium specimen labels for the duplicates deposited at QCNE