IUCN Sri Lanka

The 1999 List of Threatened Fauna and Flora of Sri Lanka

IUCN
The World Conservation Union

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ACKNOWLEDGEMENTS

The List of Nationally Threatened Species of Sri Lanka by IUCN Sri Lanka is the product of a long process which commenced in 1997 and which has received the contributions of a large number of experts in Sri Lanka. The project was initiated with several informal meetings being held to plan the procedure to be adopted and to review criteria used for preparation of other lists of threatened species elsewhere. Once the draft criteria for assessment of fauna and flora were prepared by the two teams engaged in the compilation of the respective lists, they were validated at two participatory workshops. During trial application of the criteria for evaluation of species, it became necessary to refine the criteria further; and this was carried out in consultation with several experts on local fauna and flora. Once the draft lists of threatened species were compiled, they were reviewed, amended and validated through experts' workshops. Drafts of the lists were circulated to all invitees prior to the workshops to facilitate review. The list of threatened fauna and flora was circulated for comment and presented nationally on 20 August 1999 prior to its finalisation.

The List of Nationally Threatened Fauna was compiled by Dr Devaka Weerakoon (Team Leader), Mr W L D P T Sampath de A Goonatilake, Dr Nihal Dayawansa and Ms Mayuri Wijesinghe. Mr Asela Mapatuna and Mr Lalindra Jasinghe provided assistance for preparation of species' distribution maps. The List of Nationally Threatened Flora was compiled by Prof. R N de Fonseka (Team Leader), Dr Indrani Seneviratne (Co-Team Leader), Mr T Nalinda Peiris, Mr Suranjan Fernando and Mr S A A Padmasiri. The criteria for assessment of fauna and flora were developed by the respective teams and subjected to expert review and validation.

The text sections of the document were compiled and edited by Dr J D S Dela of IUCN Sri Lanka, based on information from reports prepared by the consultancy teams and a document on draft criteria prepared by Mr L C A de S Wijesinghe. Ms Yvani Deraniyagala assisted with the editing and Ms Padmi Meegoda assisted with formatting. A final editorial review of the document was done by Mr L C A de S Wijesinghe.

The project was managed and coordinated by Dr J D S Dela, of IUCN Sri Lanka, supported by Ms Chandima Wickremasinghe and Ms Yvani Deraniyagala. Technical advice was provided for initiation and establishment of the project by Mr L C A de S Wijesinghe.

Several persons provided technical advice and support to the two teams for refining the criteria and preparation of the draft lists of threatened species. Technical advice for preparation of the list of threatened fauna was provided by Prof. F P Amerasinghe (UP), Prof. S W Kotagama (UC/SSC), Dr N Pallewatte (IUCN-RBP) and Dr J D S Dela (IUCN-SL); and with respect to the list of threatened flora by Prof. I A U N Gunatilleke (UP/SSC), Prof. C V S Gunatilleke (UP/SSC), Dr A H M Jayasuriya (PGRC/SSC), Dr D S A Wijesundara (RBG), Mr L C A de S Wijesinghe and Dr J D S Dela. Valuable critical comments were received from Dr K D Arulpragasm and Prof. B A Abeywickrama on the criteria used for preparation of the lists of threatened fauna and flora respectively.

Many people generously made their data available for compilation of the list of threatened fauna. They are (in alphabetical order) Mr Suranjan Fernando, Mr Kelum Manamendra-Arachchi, Mr Kalika Perera, Mr Rohan Pethiyagoda, Mr Mahesh Priyadarshana and members of the YZA. The following persons made available their unpublished data on threatened flora: Mr Suranjan Fernando, Mr A Palihawadana (NSRC) and members of the. YES and YZA. Acknowledgement is due to the former Director National Museums, Mr S Lakdusinghe, and to Mr Lakshman Weeratunga for providing access to faunal collections in the Department of National Museums, and to the Director, Royal Botanic Gardens, Dr D S A Wijesundara, and Mr Upali Dhanasekera for providing access to the floral collections in the National Herbarium at Peradeniya.

The validation of criteria for preparation of the list of Threatened Species of Sri Lanka benefitted by the inputs of participants at a workshop held on 23 December 1997 at NARESA (NSF). They are (in alphabetical order): Mr S D Abeywardana (FD), Prof. B A Abeywickrama (UC), Mr N T Ariyaratne (WLNPS), Prof. H H Costa (UK), Mr Anslem de Silva (UP/SSC), Mr Suranjan Fernando (YZA), Mr J Gunawardena (SEE), Mr Sujeewa Jasinghe (PGIAR), Mr T Kapurusinghe (TCP), Prof. S A Kulasooriya (UP), Dr R Mahindapala (IUCN-SL), Ms Y Mapatuna (NM), Dr S Miththapala (SSC), Mr P Parakrama (NCG), Mr S A S Pathirana, Mr P N Ranasinghe (YZA), Dr G I Seneviratne (UC), Mr L C A de S Wijesinghe (IUCN-SL), Mr A Wijesooriya (FD) and Dr W B Yapa (UC).

The criteria were refined and validated at a meeting held on 24 March 1998 at the Department of Zoology, University of Peradeniya, with the participation of Prof. F P Amerasinghe (UP), Prof. P H Amerasinghe (UP), Mr Channa Bambaradeniya (UP), Prof. W R Breckenridge (UP/SSC), Prof. M D Dassanayake (UP), Mr Anslem de Silva (SSC/UP)), Prof. J P Edirisinghe (UP), Mr Upali Ekanayake (UP), Prof. C V S Gunatilleke (UP/SSC), Prof. I A U N Gunatilleke (UP/SSC), Dr S H P P Karunaratne (UP), Prof. S A Kulasooriya (UP), Mr M P B Meegaskumbura (UP), Mr K B Ranawana (UP), Mr D B Sumithraarachchi (RBG/SSC), Dr S Wijekoon (UP), Mr L C A de S Wijesinghe (IUCN-SL) and Dr D S A Wijesundara (RBG). The workshop was open to all members of the academic staff of the Departments of Botany and Zoology of the University of Peradeniya.

The finalisation of the list of nationally threatened fauna of Sri Lanka was carried out with the contributions of participants at the experts' workshop held on 13 February 1999 at the National Science Foundation (NSF). They are (in alphabetical order): **Working group on mammals:** Prof. F P Amerasinghe (UP), Dr Nandana Atapattu (DWLC), Dr J D S Dela (IUCN-SL), Ms A Illangakoon (IUCN-SL), Mr S Jasinghe (PGIAR), Mr T Kapurusinghe (TCP), Ms Y Mapatuna (NM), Ms Mayuri Wijesinghe (UC/Team member) and Dr W B Yapa (UC); **Working group on birds** : Mr Rex de Silva (FOG/SSC), Mr J Gunawardena (SEE), Mr C Jayawardena (DWLC), Prof. S W Kotagama (UC/SSC), Mr Rahula Perera (UC/FOG) and Mr Gamini Samarakoon (DWLC); **Working group on reptiles and amphibians:** Dr Nihal Dayawansa (UC/Team member), Mr Anslem de Silva (SSC/UP), Mr K Manamendra Arachchi (WHT), Mr Anandalal Nanayakkara, Mr A Palihawadana (NSRC), Mr P Parakrama (NATCOG) and Mr P Samarawickrema (UP); **Working group on fresh water fish, shrimps and crabs:** Mr M M Bahir (WHT), Dr Ruchira Cumaranatunga (UR), Ms Dilrukshi de Silva (UC), Mr L Ekanayake (UP), Mr S Gunasekara (SLC), Ms S Jayakody (DWLC), Prof. J Jinadasa (USJ), Dr M Kuruppu (NARA), Mr M P B Meegaskumbura, Mr Ananda Pathirana (AMI. Pvt. Ltd.), Mr Vibhu Perera (L.A. Ltd.), Mr R Pethiyagoda (WHT), Mr H D Ratnayake (DWLC) and Ms R Wijeyaratne (NSF); **Working group on land snails:** Mr Channa Bambaradeniya (UP), Mr M Priyadarshana (YZA), Mr Kalika Perera and Dr R Mahindapala (IUCN-SL); **Working group on butterflies and dragonflies:** Dr N Pallewatte (IUCN-RP), Mr Dhammithra Samarasinghe (UP) and Mr Lakshman Weeratunge (NM).

The finalisation of the list of nationally threatened flora of Sri Lanka was carried out with the contributions received from the participants at the experts' workshop held on 20 July 1999 at the Royal Botanic Gardens Peradeniya, namely (in alphabetical order of sequence): Mr S D Abeywardena (IDEA), Mr Kumudu Amerasinghe (YES), Mr Upali Dhanasekera (RBG/NH), Prof. M D Dassanayake, Mr S P Ekanayake (MA), Prof. C V S Gunatilleke (UP/SSC), Prof. I A U N Gunatilleke (UP/SSC), Dr A H M Jayasuriya (PGRC/SSC), Dr S S B D G Jayawardena (DA), Mr Densi Ratnayake (YES) and Dr D S A Wijesundara (RBG). The Workshop was hosted by the Royal Botanic Gardens Peradeniya.

The national presentation of the list of threatened fauna and flora was made on 20 August 1999 at the British Council Auditorium. Participants comprised those who had contributed towards preparation of the lists, representatives of the Ministry of Forestry and Environment, relevant university departments, relevant state departments, NGOs, donor agencies, local IUCN member organisations, local members of IUCN's Species Survival Commission and the media.

The co-ordination of activities for preparing the document for printing was by Dr Channa Bambaradeniya. The final checking of the document prior to printing was by the following persons in addition to members of the two teams, namely, **list of mammals:** Ms Anouk Illangakoon, **list of birds:** Mr J Gunawardena, **list of fish and amphibians:** Dr J Dela and Mr K Manamendra-Arachchi, **list of reptiles:** Mr K Manamendra-Arachchi; **list of fresh-water shrimps and crabs:** Mr **K** Manamendra-Arachchi, **list of dragonflies and land snails:** Dr Channa Bambaradeniya; **list of butterflies:** Dr Nirmali Pallewatte and Ms Chandima Wickramasinghe; **list of plants:** Prof. C V S Gunatilleke and Ms Kumudini de Silva; references and data sources (fauna and flora): Ms Chandima Wickramasinghe and Dr Channa Bambaradeniya; **appendices:** Dr Channa Bambaradeniya

In addition to those mentioned above in terms of specific activities, the following staff members of IUCN Sri Lanka assisted in many ways in the preparation of this document and the organisation and facilitation of the various workshops: Ms S E Yasaratne (Country Representative), Mr B K Fernando, Dr R Mahindapala, Ms Anouk Illangakoon, Ms Indika Samarakoon and Mr Sanjiv de Silva. Mr Asanka Abayakoon assisted with the organisation of the experts' workshop on fauna.

The preparation of this document also received valuable support from members of the IUCN Asia Regional Biodiversity Programme, namely from Dr Scott Perkin (assistance with facilitating the faunal group at the first criteria validation workshop and review of drafts) and Dr N Pallewatte (technical advice to the faunal team and review of drafts).

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ABBREVIATIONS IN THE TEXT

A M I Pvt. Ltd.	Aquamarine International Pvt.
BC	Bird Club
DA	Department of Agriculture
DWLC	Department of Wildlife Conservation
FD	Forest Department
FAO	Food and Agriculture Organisation
FOG	Field Ornithology Group
IDEA	Integrated Development Association
IUCN	The World Conservation Union
IUCN-SL	IUCN Sri Lanka
IUCN-RBP	IUCN Asia Regional Biodiversity Programme
L A Ltd	Lumbini Aquaria Wyamba Limited
MA	Mahaweli Authority
MF&E	Ministry of Forestry and Environment
NARA	National Aquatic Resources Research and Development Agency
NATCOG	Nature Conservation Group
NCR	National Conservation Review
NARESA	Natural Resources, Energy and Science Authority of Sri Lanka
NGO	Non-governmental Organisation
NH	National Herbarium
NM	Department of National Museums
NSF	National Science Foundation
NSRC	Neo-synthesis Research Centre
PGIAR	Postgraduate Institute of Archaeology
PGRC	Plant Genetic Resources Centre
RBG	Royal Botanic Gardens Peradeniya
SEE	Society for Environmental Education
SLC	Sri Lanka Customs Department
SSC	Species Survival Commission of IUCN
TCP	Turtle Conservation Project
UC	University of Colombo
UK	University of Kelaniya
UP	University of Peradeniya
UR	University of Ruhuna
USJ	University of Sri Jayewardenepura
WCMC	World Conservation Monitoring Centre
WHT	Wildlife Heritage Trust
WLNPS	Wildlife and Nature Protection Society of Sri Lanka
YES	Youth Exploration Society
YZA	Young Zoologists' Association

PART I

INTRODUCTION TO THE 1999 LIST OF THREATENED FAUNA AND FLORA OF SRI LANKA

BACKGROUND

Sri Lanka's fauna and flora account for a high degree of species richness and endemism. These species, particularly the endemics, are, however, under severe threat mainly due to the rapid depletion of forest cover, high population density, habitat degradation and unplanned development activities. The preparation of a list of nationally threatened species by IUCN Sri Lanka is in effect an initiative to promote conservation and sustainable use of the country's biological resources. It is expected that the valuable information generated on the status of Sri Lanka's fauna and flora, through this activity, will be of significant importance to the conservation of biodiversity in the country.

There have been several attempts in the past to compile lists of Sri Lanka's threatened species. The first list of nationally threatened plants was compiled by Abeywickrama (1987), which was reproduced by the then Natural Resources Energy and Science Authority (NARESA)[1] in the publication *Biological Conservation in Sri Lanka: A National Status Report* (Wijesinghe *et al.* 1989). This list was later updated by IUCN Sri Lanka, using data obtained from the National Conservation Review (NCR)[2], and published in the revised *Biological Conservation in Sri Lanka: A National Status Report* (Wijesinghe *et al.* 1993).

Reference must also be made to a study carried out by Gunatilleke and Gunatilleke (1991), in five rain forests of Sri Lanka, in which they recorded 184 species of woody plants. Using quantitative data, supplemented by other available information on these species, they applied the then prevailing pre-1994 IUCN criteria to assign species to different categories of threat. Accordingly, 93 per cent of the endemics recorded during the study fell into one of three categories of threat: endangered, vulnerable or rare.

With regard to the fauna, the first list of nationally threatened species was compiled by Jinie Dela and S W Kotagama for inclusion in the first edition of the *Biological Conservation in Sri Lanka: A National Status Report* (Wijesinghe *et al.* 1989). This list was later updated by Dela for publication in the revised edition of the *Biological Conservation in Sri Lanka: A National Status Report* produced by IUCN Sri Lanka (Wijesinghe *et al.* 1993). A number of new species were added, and some were omitted from the original list, based on field information on terrestrial species provided mainly by P B Karunaratne, a team member of the National Conservation Review[2] (IUCN / WCMC/FAO 1997). Much of the information on threatened marine fish for preparation of the 1993 list was received from Arjan Rajasooriya of the National Aquatic Resources Research and Development Agency (NARA). Technical inputs for preparation of the 1993 list were also provided by several other experts in government departments, universities and NGOs.

The 1993 lists[3] of nationally threatened fauna and flora were based on the literature available at the time of their compilation, supplemented by information obtained from scientists and naturalists whose field studies provided evidence relating to features such as occurrence, rarity and abundance of plant and animal species. In respect of the

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1 Now the National Science Foundation

2 A biodiversity assessment of the natural forests of Sri Lanka carried out by the Forest Department and IUCN Sri Lanka

3 The lists of nationally threatened fauna and flora in the revised 1993 edition of the Biological *Conservation in Sri Lanka: A National Status Report* (Wijesinghe *et al.* 1993).

fauna, no quantitative data on population size were used in the assessment of threat as the available information was very scanty at best. For example, the basis for listing a species as threatened was determined by whether (a) it is endemic - as the main habitats of endemics, often being wet zone forests, are small and fragmented and under threat; (b) its normal distribution occurred within an area under threat; (c) it was documented in key publications as rare, heavily exploited, declining in population size, threatened, etc., and/or (d) it was felt to be rare or under threat by experienced field biologists based on personal judgement. All species were listed as threatened, and not subdivided into different categories of threat.

The 1993 lists of threatened species have been widely used, and have served to focus attention on the serious nature of threats facing the nation's fauna and flora. **These lists are, however, not claimed to be anything but provisional**[4]; their main drawback being the element of subjectivity introduced due to the reliance on personal judgements to assign species as threatened, and the fact that inclusion of species was sometimes based on criteria (i.e. endemicity) that are not directly related to the "risk of extinction".

In contrast, the *1996 IUCN Red List of Threatened Animals* (IUCN 1996) has been compiled using criteria that are objective and quantitative. This list contains the status of threat of 5205 species world-wide, and is based on the new categories of threat and criteria adopted by the IUCN Council in 1994. These criteria **(Appendix 1)** require the application of quantitative data to minimise the subjectivity involved in classifying species into various categories of threat. The significance of this is extremely important. World-wide use requires a system that can be applied consistently, by different people, across different taxa, and one which can be used to improve objectivity by providing those using the criteria with clear guidance on how to evaluate different causal factors that increase the 'risk of extinction'. IUCN, however, acknowledges the paucity of quantitative data and states "... the absence of high quality data should not deter attempts at applying the criteria, as methods involving estimation, inference and projection are emphasised to be acceptable ..." (IUCN 1994).

The 1996 IUCN global list of threatened animals contains 43 species[5] found within Sri Lanka, of which only two are invertebrates, and a further 41 which occur in the Western Indian Ocean. With regard to plants the *1997 IUCN Red List of Threatened Plants* (Walter and Gillett 1998), based on pre-1994 criteria **(Appendix 2),** lists 455 Sri Lankan species as Endangered, Vulnerable, Rare or Indeterminate. At the national level, however, many more species found in Sri Lanka can be considered to be under threat, as indicated by the 1993 provisional lists of threatened fauna and flora.

The Convention on Biological Diversity, ratified by Sri Lanka in 1994, requires the Contracting Parties to identify important components of biological diversity for conservation and sustainable use. One such component comprises threatened species. In this context, and in view of the fact that the current IUCN global lists of threatened animals and plants are not meant to fulfil the need for comprehensive lists of nationally threatened species, IUCN Sri Lanka embarked on the preparation of an updated list of nationally threatened fauna and flora.

4 Termed the 1993 provisional lists in this document.

5 There are 44 species if *Puntius asoka* is considered under threatened species and no! under threatened subspecies as listed in the document.

NEW CRITERIA - WHY ?

It was strongly felt that the new list of nationally threatened species of Sri Lanka should be formulated by the application of objectively and scientifically defined criteria for greater acceptability among all stakeholders, rather than being based on individual perceptions of threat. IUCN assigned the task of formulating the criteria, and compiling the list of threatened species to two teams from the University of Colombo. Prof. R N de Fonseka and Dr Indrani Seneviratne led the team for preparation of the list of threatened flora; Dr Devaka Weerakoon led the team for preparation of the list of threatened fauna.

In 1994, IUCN had developed five criteria for evaluating the threat to species at the global level. These are based on: (a) declining populations, (b) small area of distribution coupled with two of the following: (i) population severely fragmented (ii) continuing decline in distribution of population (iii) extreme fluctuations in area of distribution or number of sub-populations, (c) small population size and decline, (d) very small populations, and (e) quantitative analysis (e.g. population viability analysis) showing probability of extinction. However, due to the fact that such data are lacking for most indigenous species, there was concern that evaluating species using the IUCN global criteria at the national level would lead to the listing of many threatened species as **Data Deficient.** This would greatly reduce the value of the list as an instrument for guiding national policy on the conservation of Sri Lanka's biota. It was widely felt, therefore, that the preparation of a list of threatened species using nationally applicable, scientifically defined, criteria was the best course of action. Thus, while the **1999 List of Threatened Fauna and Flora of Sri Lanka** is in effect an update of the previously compiled provisional lists of nationally threatened fauna and flora, it is significant that inclusion of species to the present list was by. the use of criteria that can be applied across many groups of taxa, by different groups of people.

GOALS

The mam goals for preparation of the list of nationally threatened species of Sri Lanka are to:

- establish a set of objectively and scientifically defined criteria for identification of threatened species of Sri Lanka.
- produce a scientifically valid, objectively formulated list of nationally threatened fauna and flora of Sri Lanka to influence national policy.
- provide scientific information on nationally threatened species for scientists, policy makers, administrators and researchers.
- focus greater attention on the need to conserve Sri Lanka's threatened species - an important component of the country's rich biodiversity.

CRITERIA - MAIN CONSIDERATIONS

IUCN (1996) defines a threatened species as one that is likely to become extinct in the immediate, near or medium term future. In the present exercise a threatened species is defined as one that is likely to become extinct **in Sri Lanka** in the immediate or foreseeable future. The two teams compiling the lists of threatened fauna and flora, working independently, identified important **factors** for consideration of threat to the survival of species in Sri Lanka, and developed their risk assessments around these factors. Hence, the criteria adopted have taken into account those features or factors that can contribute to increasing the *"risk of extinction"* of a species.

In view of the absence of population data for most species, four other broad factors considered important for assessing "risk" to the survival of a species of plant or animal have been recognised. They are: **distributional range, habitat status** (in terms of legal protection), **intrinsic adaptability** and **human impact.** In addition, a fifth

factor takes into consideration **endemism** (restricted in distribution to Sri Lanka) or **global threat** status (denoted by inclusion in the 1996 and 1997 IUCN Red Lists of animals and plants respectively). While it is generally believed that much of Sri Lanka's endemic species are threatened due to their concentration in the small and fragmented wet zone forests, it is recognised that endemism *per se* is not a "risk factor". Endemism was, however, deemed to merit inclusion among the criteria on the basis that a threatened endemic has a higher risk of extinction than a non-endemic: the rationale being that there is no possibility of enhancing the low population status of an endemic species through migration or re-introduction of individuals from another country. Similarly, in terms of the same factor, a globally threatened species was scored for threat on the rationale that there is low possibility of increasing its local population size or stability through migration or natural dispersal.

The next task was to develop criteria on the basis of which the above mentioned factors could be accessed. Following discussions at workshops, consultations with scientists individually and in groups, and detailed testing of different criteria by the two teams, two sets of eight criteria were developed for the fauna and flora. These criteria are directly or indirectly related to the threats that underlie the new 1994 IUCN criteria. The two sets that were developed were broadly similar, but differed in many details. The differences were due to the two teams trying to make the best use of the available information and to work within the limited resources available, while also recognising the distinctive features of the fauna and flora. For example, one criterion for the fauna is the extent of occurrence, which is computered as the area enclosed by an imaginary line joining all the outmost locations where a species has been observed. This was not considered satisfactory for the flora. The locations of the flora are generally recorded in relation to bio-climatic zones, and quite often some individual plants of a species may be found well outside its normal range, so that plotting the extend of occurrence would give a deceptively large area of distribution. Hence, under this criterion, for plants, their occurrence within one or more zones and the degree of rarity were considered. Some of the criteria were further divided, and here too differences between the two sets in the sub-criteria themselves, and their definitions, are evident for the same reasons as stated above.

Each species may thus be evaluated against eight criteria. Each criterion (or sub-criterion) was defined in such a way that a species will fall into one of up to six categories. For example, for extent of occurrence of fauna, the six categories are <500 km^2, 500-1000 km^2, 1001 - 2500 km^2, 2501- 10,000 km^2, 10001 - 25,000 km^2 and > 25,000 km^2. The species is then scored on a scale of 0-5, with the highest score been given to the category indicating the highest level of threat (e.g. in this case an area of occurrence less than 500 km^2 gets a score of 5).

Each species was evaluated against as many criteria as the available information would permit. The scores were added and averaged, and this average was used to place the species into the appropriate category of threat. It should be noted that, when computing the average score, the total is divided only by the number of criteria against which the species were actually evaluated. If a species could not be evaluated for at least four criteria due to lack of sufficient data, it was categorised as **Data Deficient.**

Two categories of threat were recognised, namely, **Highly Threatened** and **Threatened.** The cut-off points in the range of averages that would determine whether a species evaluated under this scheme is considered to be under threat; and, if so, into which category of threat it should be placed, were determined on the basis of best judgements derived through extensive consultation and testing of the system. For testing, many different species for which there was general agreement as to whether they were threatened, highly threatened, or not under threat were selected. As expected, because of differences in the criteria used, and the method of evaluation, between the fauna and flora, the cut-off points for the two groups did not coincide exactly. The details of the criteria and methods of data analysis and the cut-off points for assigning species to the two categories of threat are described in Parts II and III of this document..

RELATIONSHIP TO THE 1994 IUCN GLOBAL CRITERIA

There is a fundamental difference in the approach adopted for the present compilation of a list of nationally threatened species to that of the IUCN system adopted in 1994. The latter also uses a number of criteria (all quantitative) for assessing the degree of threat and, based on the assessment, a species is assigned to one of three categories of threat: Critically Endangered, Endangered or Vulnerable. Although a species is assessed against *all* the IUCN global criteria, it has to fulfil only *one* to qualify for inclusion in the appropriate category of threat. This is possible because each criterion is quantitative, and has a direct relationship to the possibility of extinction of a species. In contrast, the approach adopted for preparation of the present list of nationally threatened species is based on averaging the scores received by a species for the criteria against which it is evaluated. These criteria are, however, directly or indirectly related to the basic 'factors' of threat to species that underlie the 1994 IUCN criteria; namely, ***small size and continuing decline of populations or distribution.*** **In** the absence of quantitative data on these factors for much of the Sri Lankan species, the criteria used to evaluate "risk of extinction" at the national level have taken into account several features which contribute to small or declining populations and distribution of species.

The criteria used for preparation of the 1999 List of Threatened Fauna and Flora of Sri Lanka are, thus, expected to complement the 1994 IUCN criteria. It is, however, accepted that some of the national criteria may be relevant and applicable only to Sri Lanka. These criteria should also be subjected to further refining and amendment as more quantitative data on population status of species become available at the national level.

OUTCOME

Two lists of nationally threatened species of fauna and flora have been produced by assigning species to one of two categories of threat by applying the new national criteria. Among the indigenous fauna, a total of 1243 species in selected taxonomic groups have been evaluated. These include freshwater shrimps and crabs, molluscs, dragonflies, butterflies, one species of ant and all vertebrate groups - comprising fish, amphibians, reptiles, birds and mammals.

According to the present analysis, a total of 560 **species of fauna are found to be Highly Threatened or Threatened.** Species that had the required data for assessment against at least some of the criteria have been selected for evaluation. Marine species are not included in this list as the criteria adopted were felt to be applicable mainly to terrestrial species. With respect to the plants, 807 indigenous species (and one naturalised exotic[6]) from 92 families of flowering plants have been evaluated, but only nine families have been completely evaluated. **A total of 690 species of plants are found to be Highly Threatened or Threatened. Here, the species selected for evaluation are the flowering plants included in the 1993 Provisional List as well as several other species in some important families represented in the fragmented rain forests of the country.**

Admittedly, the present list of threatened species is not exhaustive. As the quantity and quality of data are not uniform across the spectrum of species in the country, it contains only those for which data were available for assessment against at least four criteria. It is, therefore, necessary that further refinement and revision of this list is made periodically. **It is also important to note that the list indicates only the "risk of extinction" of a species, and not the status of conservation priority at the national level.** The status of threat to which species are assigned to in the list is, however, expected to provide one of the most important scientific considerations for prioritising species for conservation action.

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6 *Adansonia digitata* has been selected for evaluation due to historical reasons

WHAT THE LIST DOES NOT IMPLY

An important feature of the 1999 list of nationally threatened fauna and flora is that evaluated species (with adequate data) which do not qualify for inclusion under the two recognised categories of threat **cannot** be automatically deemed as **"Not Threatened".** It should also not be interpreted that these species are available in large and stable populations, or that they do not need *any* conservation action. It is important to take into consideration that, unlike the 1994 IUCN system, the criteria used for the present national list are not *directly* based on species' population size or a restricted distribution that is declining/fluctuating or fragmented. For example, it is possible that a species found in relatively small numbers, or with a restricted distribution, may not qualify for threat status in the present analysis because of low human use or impact *at present,* or due to a high per cent of its distribution occurring within the Protected Area System. Further, several species have received scores which border on the **Threatened** category, and may need conservation action to prevent them from entering this category in the future. Hence, the status of each of these species should be determined individually. As with the IUCN 1994 system, no inference on the risk of extinction of **Data Deficient** species can be made from the present analysis due to the paucity of information. It is possible that many of these species are threatened and in need of conservation action, especially as the paucity of recorded observations could mean that they are rare. Similarly, no assessment of the risk of extinction can be made for species that have not been evaluated.

PARTNERS IN THE PROCESS

It is significant that the preparation of the present list of nationally threatened species of Sri Lanka by IUCN has been an intensely participatory process. Finalisation of the criteria received considerable inputs from researchers in universities, other experienced field researchers and from IUCN core staff during two workshops and several consultative meetings. Schemes for preparation of criteria were studied and refined during two workshops, and the five main factors - on which the criteria to evaluate species are based - were harmonised as far as possible for both fauna and flora. Members of the two teams engaged in compiling the lists also met with experts on local fauna and flora, as and when necessary, to clarify and refine the criteria further.

The two experts' workshops held to validate the lists of nationally threatened fauna and flora served to obtain valuable contributions of persons who have been involved in field research in this country through the years. At the workshop to validate the list of threatened fauna, the working sessions were devoted to small working groups - each focusing on refining the scores of species in the list pertaining to a particular group of fauna. This was facilitated by providing the working groups with the relevant data-sets compiled by the team in order to assess the 'threat' status of species. Participants were invited to check and refine the scores awarded to the species evaluated for threat, and to provide additional data where a change of scores was felt to be necessary. They were also requested to indicate the required amendments to scientific names or common names of species in the list. At the experts' workshop to finalise the list of flora, the entire group reviewed and refined the list through a similar process. Both lists were circulated and presented to a wide audience at a national presentation on 20 August 1999. The suggestions that emanated from this process too were incorporated prior to finalisation of the two lists.

A large number of national experts in the state sector, universities and NGOs, as well as IUCN Sri Lanka staff (see **acknowledgements)** have thus contributed to the preparation of the list of nationally threatened fauna and flora. Many people have generously provided their unpublished data for assessment of the "threat status" of species. These lists, are, therefore, a product of a number of consultative processes and the inputs of many persons, making it what we hope is in reality, a national document.

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PART II

THE LIST OF THREATENED FAUNA OF SRI LANKA

BACKGROUND

The formulation of criteria to assess species of fauna for threat involved an extensive review of published material on indigenous species by members of the team preparing the list of threatened fauna. This was followed by the study of several sets of criteria developed elsewhere to evaluate species for threat[1] and for conservation prioritisation. Subsequently, a set of criteria against which species could be scored was formulated. These criteria are based on causal factors that contribute to the risk of extinction of a species and are, directly or indirectly, related to the "threats" which underlie the new IUCN 1994 criteria. They also take into account the nature and extent of data available on the country's fauna.

The draft criteria prepared by the team were circulated for peer review amongst many individuals currently engaged in field research on Sri Lanka's fauna. They were validated in principle at a workshop held in Colombo on 23 December 1997, and areas for further refinement were agreed upon. The criteria were refined further and validated at a subsequent workshop held on 24 March 1998 at Peradeniya. At both workshops, species of reliably known 'threat status' were scored to check the validity of the criteria being used. Prior to finalisation of the criteria, minor amendments that became necessary when scoring species for threat were carried out by the team after several consultative discussions. The draft list of species - compiled using these criteria - was subject to intensive review by subject specialists, and subsequently presented for review and refining at an experts' workshop held on 13 February 1999. The data-sets and species' distribution maps used for assessment of threat to species were made available to the working groups at the workshop to review and amend the scores where necessary.

Species in several taxonomic groups have been evaluated for preparation of the present list of nationally threatened fauna (see section on outcome in **Part 1).** Some taxonomic groups have not been evaluated due to insufficient data, but it is hoped that a detailed analysis of these groups will be made during the preparation of subsequent lists of nationally threatened fauna.

THE CRITERIA

On the basis of the five broad factors adopted for assessing the risk of extinction of a species (see **Part I),** a total of eight criteria were formulated to score species of indigenous fauna in terms of threat. The criteria and scoring system used are summarised in **Table 2.1**

Species were assessed against the above criteria and an average score was derived by dividing the total score awarded to a species by the number of criteria against which it was evaluated. If data were not available to evaluate a species in respect of at least four criteria, it was placed under the **Data Deficient** category.

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[1] Including the 1994 Red List Global Criteria

Table 2.1: Criteria and Scoring System for Assessment of Fauna 2.1 CRITERIA AND SCORING SYSTEM FOR ASSESSMENT OF FAUNA

CRITERIA	Score of 5	Score of 4	Score of 3	Score of 2	Score of 1	Score of 0
Extent of occurrence* (km^2)	<500	500-1000	1001-2500	2501-10000	10001-25000	>25000
Area of occupancy* (km^2)	<200	300- 500	600-1000	1100-3000	3100-10000	>10000
Fragmented or restricted populations*	>80%	80-61%	60 - 41%	40-21%	20 - 1%	0%
Decline in extent of occurrence or area of occupancy*	>50%	50-41%	40-31%	30-21%	20- 10%	<10%
Habitat status (per cent of habitat under protection)	0	1 - 10%	11 - 25%	26- 50%	51 -75%	>75
Intrinsic adaptability of a species	5	4	3	2	1	0
Human impact on a species	< -5	-5 to -3	- 2 to -1	0	+1 to +2	> +2
Endemism/ global threat status	Endemic		globally threatened			Others

* criteria based on the factor relating to restricted distribution.

METHODS: FURTHER DEVELOPMENT OF CRITERIA AND EVALUATION OF SPECIES

Data collation

Distribution data on fauna were collated from books, journals, project reports, dissertations, checklists, field guides and newsletters. Unpublished data from the NCR database and from individual field researchers were also used. Information available on habits, habitats and threats faced by species was recorded where available. All references to publications and unpublished reports used to obtain data for evaluation of species are given in the list of data sources. Individuals who provided unpublished data to the team are listed in the acknowledgements.

Nomenclature

The nomenclature used in the 1999 list of threatened fauna follow recently published taxonomic works for the following groups, namely:

Land snails	Raheem and Butterworth (1998)
Freshwater shrimps	Costa (1972); Costa (1979)
Freshwater crabs	Francis (1988); Bahir (1998)
Ants	Jayasuriya and Traniello (1985)
Dragonflies	de Fonseka(1998)
Butterflies	D'Abrera(1998)
Fish	Pethiyagoda (1991); Kottelat and Vidthayanon (1993); Pethiyagoda (1998a); Pethiyagoda (1998b); Watson (1998);
Amphibians	Dubois (1986); Dutta and Manamendra-Arachchi (1996); Manamendra-Arachchi and Pethiyagoda (1998);
Reptiles	Das (1996); De Silva (1996); Pethiyagoda and Manamendra-Arachchi (1998);
Birds	Inskipp *et al*. (1996)
Mammals	Bates (1997); Corbet and Hill (1992); Wilson and Reeder (1993)

Definition of criteria and methods of data analysis

For each species, distribution data were plotted on a grid map of Sri Lanka **(Appendix 3)** in which a grid square corresponds to 100 km^2. A grid square was deemed occupied when a recorded location fell within any part of it. These maps were used to calculate the " extent of occurrence", "area of occupancy" and habitat status of species, as well as to discern the occurrence of fragmented /restricted populations and the distribution decline as explained below. Data sheets containing the required information were prepared for all species to facilitate data analysis.

The eight criteria used are:

- ***Extent of occurrence:*** Defined as the area contained within the shortest continuous imaginary boundary which can be drawn to encompass all known locations for a given taxon. This measure may include obviously unsuitable habitats for the taxon and large areas known to be unoccupied by the taxon (adapted from IUCN 1996).

  Data analysis: The shortest 'continuous imaginary boundary' was drawn by connecting the outermost grid squares occupied by a species. The area contained within this boundary was determined using a Planimeter. Species were scored on a six-point scale from 0-5, using the cut-off points given in **Table 2.1.**

- ***Area of occupancy:*** Defined as the area within the "extent of occurrence" of a species which is known to be occupied. This measure reflects the fact that a species may not occur throughout its "extent of occurrence", which may contain unsuitable habitats (adapted from IUCN 1996).

Data analysis: The number of 100 km^2 grid squares in which a species was recorded was multiplied by the area of a single square. Species were scored on a six-point scale from 0-5 as given in **Table 2.1.**

- ***Fragmented or restricted populations:*** Fragmentation was defined as the dissection of the "area of occupancy" in relation to the "extent of occurrence", and a restricted population was defined as: the occurrence of very small populations, or the distribution being restricted to one or two small grid patches (i.e. a grid patch is defined as a contiguous set of occupied grid squares). A highly fragmented or severely restricted population, or distribution, was deemed to indicate that the members of such a species occurred in small sub-populations that may go extinct, with a reduced probability of recolonisation.

  Data analysis: At the experts' workshop, species were scored subjectively where possible on a six-point scale (as in **Table 2.1)** based on the species' distribution maps. The scoring for fragmentation took into account the size and number of grid patches in which a species occurred, the distance between these patches, and the generally perceived home range size and mobility of a species.

- ***Decline in extent of occurrence and/or area of occupancy:*** This criterion is based on the rationale that decline in "extent of occurrence" and/or "area of occupancy" would increase the risk of extinction of a species. The year of reference for assessing decline was taken as 1973. Many of the species were, however, deficient either in pre- or post- 1973 distribution data. Further, some range expansions since 1973 appeared to be an artefact of the wider survey of the species' distributions due to increased research. Such data were excluded from this analysis.

  Data analysis: Species were scored based on the difference in the area of distribution (either in respect of the "extent of occurrence" or the "area of occupancy") during the pre- 1973 and post- 1973 periods. To facilitate this analysis, the grid squares occupied during these two time periods were mapped using two colours. A change in the "extent of occurrence" or the "area of occupancy" of a species was stated in terms of a percentage decline, and scored on a six-point scale as in **Table 2.1**.

- ***Habitat status:*** Defined as the per cent of the "area of occupancy" of a species that is under legal protection. *Data analysis:* The grid map of Sri Lanka was overlaid with a map of the Protected Areas of the country, and the area under Protection in each grid was calculated and marked on a map **(Appendix 4).** The species' distribution maps were overlaid with this map, and the percentage of the area of occupancy that falls within the protected areas was calculated as follows:

  $$\text{Per cent Protected Area} = \frac{\text{Total protected area within the area of occupancy}}{\text{Total area of occupancy}} \times 100$$

  This criteria was scored on a six-point scale as given in **Table 2.1,**

- ***Intrinsic adaptability:*** Defined in terms of selected features (common to most species) that indicate ability to withstand changes in the external environment, namely: diet breadth, site tenacity, habitat breadth, relative mobility and reproductive success.

  Data analysis: This factor was evaluated using the average score received for the following sub-criteria against which a species was evaluated.

i. ***DIET BREADTH*:** Species were evaluated based on three major categories of diet type and scored as follows:

Diet type	**Score**
Top carnivores; Specialised frugivores; Specialised terrestrial insectivores	5
Generalised frugivores; Nectarivores; Terrestrial insectivores; Specialised herbivores	3
Generalised herbivores; Flying insectivores; Omnivores; Scavengers	0

ii. ***SITE TENACITY:*** Species were evaluated on a six-point scale based on their distribution in the island within the six bioclimatic zones defined by Wijesinghe *et al.* (1993); namely low and mid-country wet zone; dry zone; low and mid-country intermediate zone; montane wet zone; montane intermediate zone; and arid zone. This sub-criterion was scored according to the number of bioclimatic zones in which a species occurred, as follows: one zone (5), two zones (4), three zones (3), four zones (2), five zones (1), six zones (0).

iii. ***HABITAT BREADTH:*** Species were evaluated based on the number of habitats occupied in relation to the number of potentially available habitats. A total of seven aquatic habitats and 13 terrestrial habitats were recognised based on available literature. They are:

Aquatic habitats: habitats recorded as lagoons; estuaries; streams - rapidly flowing; streams - slow flowing; riverine; lacustrine; wetland marshes.

Terrestrial habitats: defined by Gunatilleke and Gunatilleke (1990) as coastal and marine belt; dry and arid lowlands; northern intermediate lowlands; eastern intermediate lowlands; northern wet lowlands; Sinharaja and Ratnapura; southern lowland hills; foothills of Adam's Peak and Ambagamuwa; Kandy and upper Mahaweli; Knuckles; central mountains-Ramboda, Nuwara Eliya; Adam's Peak; and Horton Plains.

Per cent habitat breadth was calculated as: $\frac{\text{Number of habitats occupied}}{\text{Total number of potential habitats}} \times 100$

The per cent habitat breadth derived by the above formula was scored as follows using a six-point scale:

Per cent habitat breadth	0-19%	20-29%	30-39%	40-59%	60-79%	80-100%
Score	5	4	3	2	1	0

iv. ***RELATIVE MOBILITY:*** Species were evaluated based on the distance an individual generally travels for its normal activities. This sub-criterion was scored using a six-point scale as follows:

Normal distance travelled	0 - 0.5 km	>0.5-1 km	>1 - 5 km	>5 - 10 km	>10-50km	>50 km
Score	5	4	3	2	1	0

v. ***REPRODUCTIVE SUCCESS:*** Each species was assigned to four different reproductive categories based on reproductive rate and parental care. Reproductive rate was assessed subjectively based on the recorded behaviour of a species, the number of eggs/offspring produced per litter and the number of litters/offspring produced by a female. Parental care is defined here as any investment made by one or both parents towards protection of eggs or offspring.

This sub-criterion was scored as follows: high reproductive rate with parental care (1), high reproductive rate without parental care (2), low reproductive rate with parental care (3), low reproductive rate without parental care (5).

- ***Human Impact:*** Defined as both direct and indirect impact of human activities which influence the future survival of a species.
  Data analysis: Each species was assessed against the impacts listed in the table below. For each impact, a positive or negative score of 1 was given to the species under consideration (i.e. a positive or favourable impact was given a score of + 1, and a negative impact was given a score of -1).

Impact of Humans on Species	**Impact value**
Deforestation	+/-
Mining	+/-
Hydropower projects	+/-
Human settlements	+/-
Man-made fire	+/-
Introduction of other species	+/-
Exploitation by humans	-
Pollution	-
Pesticide use	-
Road kills	-
Ex-situ conservation	+
In-situ conservation	+

Finally, the sum of all "impact values" was derived and scored on a six-point scale of 0-5 as follows:

Scores	5	4	5	2	1	0
Total	<-5	- 5 to - 3	- 2 to - 1	0	+1 to +2	>+2

- ***Endemism or global threat status:*** An endemic is defined as a species that is restricted in distribution to Sri Lanka. A species is deemed to be globally threatened if it is listed as Critically Endangered, Endangered or Vulnerable in the *1996 IUCN Red List of Threatened Animals* (IUCN 1996).
  Data analysis: An endemic species received a score of 5 and a non-endemic, indigenous, globally threatened species received a score of 3. Other indigenous species received a score of 0.

CATEGORIES OF THREAT

Species were assigned to two categories of threat: Highly Threatened and Threatened, using the cut-off points given below:

Category	**Highly Threatened**	**Threatened***
Average score	**5-4.1**	**4-2.1**

***** Species which received ≤2 should not be interpreted as "not threatened", not needing any conservation action or freely available for use (see section on What the list does not imply in Part 1 of this document for further clarification). Further, it should be noted that the status of threat for species which were not evaluated during this work, or were deemed Data Deficient, are also unknown,

Table 2.2: The Summary of Evaluated Faunal Groups

(It has to be noted that in many faunal groups all terrestrial species have not been evaluated; and marine species have not been considered)

Group	Species			Endemic Species		
	Number	Threatened species		Number & per cent	Threatened species	
		National List (number & %)	Number in Global List		National List (number & %)	Number in Global List
Land snails	235	117 (49.79%)	0	198 (84.25)	103 (52.02)	0
Freshwater shrimps	23	18 (78.26)	0	07 (30.43)	07 (100)	0
Freshwater crabs	25	25 (100)	0	25 (100)	25 (100)	0
Ants *	01	01	01	01*	01	01
Dragonflies	116	70 (60.34)	0	49 (42.24)	49 (100)	0
Butterflies	243	76 (31.28)	01	20 (8.23)	13 (65)	01
Freshwater fishes	78	39 (50)	09**	32 (41.02)	32 (100)	09**
Amphibians	54	33 (61.11)	0	35 (64.81)	31(88.57)	0
Tetrapod reptiles	74	47(63.51)	03	39 (52.70)	35(89.74)	02
Serpentoid reptiles	81	39 (48.15)	0	42 (51.85)	32 (76.19)	0
Birds	226	61 (26.99)	11	23 (10.18)	22 (95.65)	06
Mammals	90	34 (37.78)	13	14 (15.56)	13 (92.86)	07

*Percentage is not given as only one species is evaluated, all percentages indicate number threatened among the evaluated species only.

** 09 when *Puntius asoka* is considered as a globally threatened species

The List of Threatened Fauna of Sri Lanka

Format used in the list:

Scientific name
Common English name (CEN)
Endemicity (ES)
Threat status given in the *1996 IUCN Red List of Threatened Animals* (GTA)
Threat status given in the 1993 Provisional List (PrL)
Threat status assigned in the present national list (NL)

Abbreviations used in the list:

CR - Critically Endangered
DD - Data Deficient
EN - Endangered
ES - Endemic Species
GTA - Globally Threatened Animals
HT - Highly Threatened (status in present list)
LR - Lower Risk
LR:cd - Lower Risk: conservation dependent
LR:nt - Lower Risk: near threatened
NL - National List (present list)
PrL - Provisional List (of 1993)
T - Threatened (status in the Provisional List of 1993)
TR - Threatened (status in the present list)
VU - Vulnerable
* - Indicates that the evaluation is based on data published prior to 1973

LIST OF THREATENED FAUNA OF SRI LANKA

Scientific name	CEN	ES	GTA	PrL	NL
	PHYLUM: MOLLUSCA				
	CLASS: GASTROPODA				
Order: Pupilloidea					
Family: Streptaxidae					
Indoartemon layardinaus	-	ES	-	T	HT
Perrottetia peroteti	-	ES	-	-	HT
Family: Ariophantidae					
Cryptozona ceraria	-	ES	-	T	TR
Cryptozona chenui	-	ES	-	T	TR
Cryptozona juliana	-	ES	-	T	TR
Cryptozona novella	-	ES	-	T	HT
Euplecta acuducta	-	-	-	-	TR
Euplecta albizonata	-	-	-	-	TR
Euplecta colletti	-	ES	-	T	HT
Euplecta emiliana	-	ES	-	-	TR
Euplecta gardened	-	ES	-	T	HT
Euplecta hyphasma	-	ES	-	T	TR
Euplecta isabellina	-	ES	-	T	HT
Euplecta layardi	-	ES	-	T	TR
Euplecta partita	-	ES	-	-	TR
Euplecta phidias	-	ES	-	-	HT
Euplecta rosamonda	-	ES	-	T	HT
Euplecta scobinoides	-	ES	-	-	TR
Euplecta subopaca	-	ES	-	-	TR
Euplecta turritella	-	ES	-	T	HT
Macrochlamys perfucata	-	ES	-	T	HT
Macrochlamys tratanensis	-	ES	-	T	TR
Macrochlamys vilipensa	-	-	-	-	TR
Macrochlamys woodiana	-	-	-	-	TR
Mariella dussumieri	-	-	-	-	TR
Microcystina lita	-	ES	-	T	HT
Ravana politissima	-	ES	-	T	HT

Scientific name	CEN	ES	GTA	PrL	NL
Ratnadvipia irridians	-	ES	-	T	TR
Family: Euconulidae					
Eurychlamys regulata	-	ES	-	T	HT
Family: Trochomorphidae					
Trochomorpha galerus	-	ES	-	T	HT
Trochomorpha hyptiocyclos	-	ES	-	T	HT
Family: Endodontidae					
Philalanka mononema	-	ES	-	T	HT
Philalanka thwaitesi	-	ES	-	T	TR
Philalanka trifdosa	-	ES	-	T	HT
Ruthvenia biciliata	-	ES	-	T	HT
Ruthvenia clathratula	-	ES	-	T	TR
Family: Corillidae					
Cordia adamsi	-	ES	-	T	TR
Cordia beddomeae	-	ES	-	T	TR
Cordia carabinata	-	ES	-	T	TR
Cordia colletti	-	ES	-	T	TR
Corilla erronea	-	ES	-	T	TR
Cordia fryae	-	ES	-	T	TR
Cordia gudei	-	ES	-	T	TR
Cordia humberti	-	ES	-	T	TR
Cordia odontophora	-	ES	-	-	TR
Family: Enidae					
Minis proletaria	-	ES	-	T	HT
Mirus stalix	-	ES	-	T	TR
Family: Cerastidae					
Rachis punctatus	-	-	-	-	TR
Rachistia adumbratus	-	ES	-	T	HT

Scientific name	CEN	ES	GTA	PrL	NL
Family: Pupillidae					
Pupoiclescoenopictus	-	-	-	-	TR
Family: Acavidae					
Acavus haemastoma	-	ES	-	T	TR
Acavus phoenix	-	ES	-	T	TR
Acavus superbus	-	ES	-	T	TR
Oligospira polei	-	ES	-	-	TR
Oligospira skinneri	-	ES	-	T	TR
Oligospira waltoni	-	ES	-	T	TR
Family: Camaenidae					
Beddomea albizonatus	-	ES	-	T	TR
Beddomea ceylanicus	-	ES	-	T	TR
Beddomea intermedius	-	ES	-	T	TR
Trachia vittata	-	-	-	-	TR
Family: Subulinidae					
Allopeas gracile	-	-	-	-	TR
Allopeas layardi	-	ES:	-	T	TR
Allopeas prestoni	-	ES	-	T	HT
Subulina octona	-	-	-	-	TR
Family: Giessulidae					
Glessula ceylanica	-	ES	-	T	HT
Glessula collettae	-	ES	-	T	HT
Glessula deshayesi	-	-	-	-	TR
Glessula inornata	-	ES	-	T	TR
Glessula lankana	-	ES	-	T	HT
Glessula pallens	-	ES	-	-	HT
Glessula panaetha	-	ES	-	-	HT
Glessula parabilis	-	ES	-	-	HT
Glessula reynelli	-	ES	-	T	HT
Glessula serena	-	ES	-	T	HT

Scientific name	CEN	ES	GTA	PrL	NL
Family: Cyclophoridae					
Aulopoma helicinum	-	ES	-	T	TR
Aulopoma itieri	-	ES	-	-	TR
Aulopoma sphaeroideum	-	ES	-	-	HT
Cyathopoma leptomita	-	ES	-	T	TR
Cyathopoma prestoni	-	ES	-	-	HT
Cyclophoms alabastrinus	-	ES	-	-	HT
Cyclophorus ceylanicus	-	ES	-	T	TR
Cyclophoms liratula	-	ES	-	-	TR
Cyclophorus menkeanus	-	ES	-	-	TR
Lagocheilus binoyae	-	ES	-	T	HT
Leptopoma semiclausum	-	ES	-	-	TR
Leptopoma taprobanensis	-	ES	-	T	TR
Micraulax coeloconus	-	-	-	-	TR
Pterocyclus bifrons	-	ES	-	T	HT
Pterocyclus bilabiatus	-	-	-	-	TR
Pterocyclus cingalensis	-	ES	-	T	HT
Pterocyclus cumingi	-	-	-	-	TR
Scabrina brounae	-	ES	-	T	HT
Theobaldius annulatus	-	ES	-	T	TR
Theobaldius bairdi	-	ES	-	T	TR
Theobaldius cadiscus	-	ES	-	T	TR
Theobaldius cratera	-	ES	-	-	HT
Theobaldius cytopoma	-	ES	-	-	TR
Theobaldius layardi	-	ES	-	-	TR
Theobaldius parma	-	ES	-	-	TR
Theobaldius subplicatus	-	ES	-	-	TR
Tortulosa aurea	-	ES	-	T	HT
Tortulosa austeniana	-	ES	-	T	HT
Tortulosa blanfordi	-	ES	-	T	HT
Tortulosa colletti	-	ES	-	T	HT
Tortulosa congener	-	ES	-	T	HT
Tortulosa cumingi	-	ES	-	T	TR
Tortulosa decora	-	ES	-	T	HT
Tortulosa eurytrema	-	ES	-	T	HT
Tortulosa greeni	-	ES	-	T	HT

Scientific name	CEN	ES	GTA	PrL	NL
Tortulosa haemastoma	-	ES	-	T	TR
Tortulosa layardi	-	ES	-	-	TR
Tortulosa marginata	-	ES	-	T	TR
Tortulosa nevilli	-	ES	-	-	HT
Tortulosa nietneri	-	ES	-	T	HT
Tortulosa pyramidata	-	ES	-	T	TR
Tortulosa sykesi	-	ES	-	T	HT
Tortulosa templemani	-	ES	-	T	HT
	PHYLUM: ARTHROPODA				
	CLASS: CRUSTACEA				
Order: Decapoda					
Family: Atyidae					
Caridina costai	-	ES	-	T	TR
Caridina fernandoni	-	ES	-	T	TR
Caridina gracilirostris	-	-	-	-	TR
Caridina kumariae	-	ES	-	-	HT
Caridina pristis	-	ES	-	T	TR
Caridina propinqua	-	-	-	-	TR
Caridina singalensis	-	ES	-	T	TR
Caridina typus	-	-	-	-	TR
Caridina zeylanica	-	ES	-	-	TR
Family: Palaemonidae					
Macrobrachium australe	-	-	-	-	TR
Macrobrachium equidens	-	-	-	-	TR
Macrobrachium idella	-	-	-	-	TR
Macrobrachium kistnense	-	-	-	-	TR
Macrobrachium latidactylus	-	-	-	-	TR
Macrobrachium latimanus	-	-	-	-	TR
Macrobrachium malcolmsonii	-	-	-	-	TR
Macrobrachium rude	-	-	-	-	TR
Macrobrachium srilankense	-	ES	-	T	HT
Family: Parathelphusidae					
Ceylonthelphusa kandambyi	-	ES	-	-	TR

Scientific name	CEN	ES	GTA	PrL	NL
Ceylonthelphusa nana	-	ES	-	-	HT
Ceylonthelphusa ornatipes	-	ES	-	T	HT
Ceylonthelphusa rugosa	-	ES	-	T	TR
Ceylonthelphusa scansor	-	ES	-	-	TR
Ceylonthelphusa sentosa	-	ES	-	-	HT
Ceylonthelphusa sorror	-	ES	-	T	TR
Oziothelphusa ceylonensis	-	ES	-	-	TR
Oziothelphusa hippocastanum	-	ES	-	-	HT
Oziothelphusa minneriyaensis	-	ES	-	T	TR
Perbrinckia armata	-	ES	-	-	HT
Perbrinckia callista	-	ES	-	-	HT
Perbrinckia cavatrix	-	ES	-	-	HT
Perbrinckia cracens	-	ES	-	-	HT
Perbrinckia enodis	-	ES	-	-	HT
Perbrinckia glabra	-	ES	-	-	HT
Perbrinckia Integra	-	ES	-	-	HT
Perbrinckia kotagama	-	ES	-	-	HT
Perbrinckia punctata	-	ES	-	-	HT
Perbrinckia sanguinea	-	ES	-	-	TR
Perbrinckia scitula	-	ES	-	-	HT
Perbrinckia uva	-	ES	-	-	HT
Perbrinckia venusta	-	ES	-	-	TR
Spiralothelphusa fernandoni	-	ES	-	-	TR
Spiralothelphusa parvula	-	ES	-	-	HT
CLASS: INSECTA					
Order: Odonata					
Family: Chlorocyphidae					
Libellago adami	-	ES	-	-	TR
Libellago finalis	-	ES	-	-	TR
Libellago greeni	-	ES	-	-	TR
Libellago indica	-	-	-	-	TR
Family: Euphaeidae					
Euphaea splendens	-	ES	-	-	TR

Scientific name	CEN	ES	GTA	PrL	NL
Family: Lestidae					
Indolestes divisus	-	ES	-	-	TR
Indolestes gracilis	-	ES	-	-	TR
Lestes elatus	-	-	-	-	TR
Lestes malabarica	-	-	-	-	TR
Lestes praemorsus	-	-	-	-	TR
Sinhalestes orientalis	-	ES	-	-	TR
Family: Coenagrionidae					
Agriocnemis femina	-	-	-	-	TR
Enallagma parvum	-	-	-	-	TR
Mortonagrion ceylonicum	-	ES	-	-	TR
Onychargia atrocyana	-	-	-	-	TR
Family: Platystictidae					
Drepanosticta adami	-	ES	-	-	HT
Drepanosticta austeni	-	ES	-	-	HT
Drepanosticta brincki	-	ES	-	-	HT
Drepanosticta digna	-	ES	-	-	HT
Drepanosticta fraseri	-	ES	-	-	HT
Drepanosticta hilaris	-	ES	-	-	TR
Drepanosticta lankanensis	-	ES	-	-	TR
Drepanosticta montana	-	ES	-	-	TR
Drepanosticta nietneri	-	ES	-	-	TR
Drepanosticta sinhalensis	-	ES	-	-	HT
Drepanosticta starmuhlneri	-	ES	-	-	HT
Drepanosticta submontana	-	ES	-	-	HT
Drepanosticta subtropica	-	ES	-	-	HT
Drepanosticta tropica	-	ES	-	-	HT
Drepanosticta walli	-	ES	-	-	HT
Platysticta apicalis	-	ES	-	-	TR
Platysticta maculata	-	ES	-	-	TR
Family: Protoneuridae					
Disparoneura ramajana	-	ES	-	-	HT
Elattoneura bigemmata	-	ES	-	-	TR
Elattoneura caesia	-	ES	-	-	TR

Scientific name	CEN	ES	GTA	PrL	NL
Elattoneura centralis	-	ES	-	-	TR
Elattoneura leucostigma	-	ES	-	-	HT
Elattoneura tenax	-	ES	-	-	TR
Prodasineura sita	-	ES	-	-	TR
Family: Gomphidae					
Anisogomphus solitaris	-	ES	-	-	HT
Burmagomphus pyramidalis	-	ES	-	-	TR
Cyclogomphus gynostylus	-	ES	-	-	HT
Gomphidia pearsoni	-	ES	-	-	HT
Heliogomphus ceylonicus	-	ES	-	-	TR
Heliogomphus lyratus	-	ES	-	-	HT
Heliogomphus nietneri	-	ES	-	-	HT
Heliogomphus walli	-	ES	-	-	TR
Macrogomphus annulatus	-	ES	-	-	TR
Macrogomphus lankanensis	-	ES	-	-	TR
Megalogomphus ceylonicus	-	ES	-	-	TR
Microgomphus wijaya	-	ES	-	-	TR
Paragomphus henryi	-	ES	-	-	TR
Family: Aeshnidae					
Anax guttatus	-	-	-	-	TR
Anax indicus	-	-	-	-	TR
Anaciaeschna martini	-	-	-	-	TR
Family: Corduliidae					
Macromia flinti	-	ES	-	-	HT
Macromia zeylanica	-	ES	-	-	TR
Family: Libellulidae					
Cratilla lineata	-	-	-	-	TR
Hydrobasileus croceus	-	-	-	-	TR
Hylaeothemis fruhstorferi	-	-	-	-	HT
Indothemis limbata	-	-	-	-	TR
Macrodiplax cora	-	-	-	-	TR
Neurothemis intermedia	-	-	-	-	TR

Scientific name	CEN		ES	GTA	PrL	NL
Onychothemis tonkinensis	-		-	-	-	TR
Orthetrumchrysis	-		-	-	-	TR
Rhyothemis triangularis	-		-	-	-	TR
Sympetrum fonscolombei	-		-	-	-	TR
Tetrathemisyerburyi	-		ES	-	-	TR
Zygonyx iris	-		ES	-	-	IR
Zyxomma petiolatum	-		-	-	-	IR
Order: Lepidoptera						
Family: Papilionidae						
Pachliopta jophon	-	Ceylon rose	ES	CR	T	TR
Papilio helenus	-	Red helen	-	-	T	TR
Pathysa antiphates	-	Five bar swordtail	-	NE	T	TR
Troides darsius	-	Ceylon birdwing	ES	-	T	TR
Family: Pieridae						
Appias indra	-	Plain puffin	-	-	T	TR
Appias libythea	-	Striped albatross	-	-	-	TR
Appias paulina	-	Lesser albatross	-	-	-	TR
Colotisaurora	-	Plain orange tip	-	-	-	TR
Family: Danaidae						
Idea iasonia	-	Tree nymph	ES	LR:nt	T	TR
Parantica taprobana	-	Ceylon tiger	ES	LR:nt	T	TR
Family: Nymphalidae						
Charaxes solon	-	Black Rajah	-	-	T	TR
Charaxes psaphon	-	Tawny Rajah	-	-	T	TR
Doleschallia bisaltide	-	Autumn leaf	-	-	T	TR
Euthalia lubentina	-	Gaudy baron	-	-	T	TR
Kallima philarchus	-	Blue oakleaf	ES	-	T	TR
Parthenos sylvia	-	Clipper	-	-	T	TR
Phalanta alcippe	-	Small leopard	-	-	T	TR
Polyura athamas	-	Nawab	-	-	T	TR
Vanessacardui	-	Painted lady	-	-	-	TR
Vindulaerota	-	Cruiser	-	-	T	TR

Scientific name	CEN	ES	GTA	PrL	NL
Family: Satyridae					
Elymnias singala	- Ceylon palmfly	ES	-	T	TR
Lethe daretis	- Ceylon treebrown	ES	-	T	HT
Lethe drypetis	- Tamil treebrown	-	-	-	TR
Lethe dynaste	- Ceylon forester	ES	-	T	TR
Mycalesis rama	- Cingalese bushbrown	ES	-	T	HT
Ypthima singala	- Jewel four-ring	ES	-	-	TR
Family: Lycaenidae					
Amblypodia anita	- Purple leafblue	-	-	-	TR
Arhopala abseus	- Aberrant bushblue	-	-	T	TR
Arhopala amantes	- Large oakblue	-	-	-	TR
Arhopala pseudocentaurus	- Centaur oakblue	-	-	-	TR
Azanus jesous	- African babul blue	-	-	-	TR
Bindahara phocides	- Plane	-	-	T	TR
Deudorix epijarbas	- Cornelian	-	-	-	TR
Discolampa ethion	- Banded blue pierrot	-	-	-	TR
Euchrysops cnejus	- Gram blue	-	-	-	TR
Hypolycaena nilgirica	- Nilgiri tit	-	-	T	TR
Nacaduba hermus	- Pale four-line blue	-	-	-	TR
Nacaduba kurava	- Transparent six-line blue	-	-	-	TR
Nacaduba pactolus	- Large four-line blue	-	-	-	TR
Nacaduba sinhala	- Pale ceylon six-line blue	ES	-	-	TR
Neopithicops zalmora	- Quaker	-	-	-	TR
Petrelaea dana	- Dingy lineblue	-	-	-	TR
Pratapa deva	- White royal	-	-	T	TR
Prosotas dubiosa	- Tailless lineblue	-	-	-	TR
Spalgis epeus	- Apefly	-	-	-	TR
Spindasis ictis	- Ceylon silverline	-	-	-	TR
Spindasis lohita	- Long-banded silverline	-	-	-	TR
Spindasis lunulifera	- Scarce shot siverline	-	-	-	TR
Spindasis vulcanus	- Common silverline	-	-	-	TR
Tajuria jehana	- Plains blue royal	-	-	T	TR
Tarucus nara	- Striped pierrot	-	-	T	TR
Udara lanka	- Ceylon hedge blue	ES	-	T	TR
Virachola isocrates	- Common gauva blue	-	-	T	TR

Scientific name	CEN	ES	GTA	PrL	NL
Zesius chrysomallus	- Redspot	-	-	-	TR
Zizeeria karsandra	- Dark grass blue	-	-	-	TR
Zizula hylax	- Tiny grass blue	-	-	-	TR
Family: Hesperiidae					
Badamia exclamationis	- Brown awl	-	-	-	TR
Baoris penicillata	- Paint bush swift	-	-	T	TR
Bibasis oedipodea	- Branded orange awlet	-	-	T	TR
Capronaransonnettii	- Golden angle	-	-	-	TR
Choaspes benjaminii	- Indian awl king	-	-	T	TR
ColadeniaIndrani	- Tricolour pied chat	-	-	-	TR
Gangara thyrsis	- Giant redeye	-	-	T	TR
Gomalia elma	- African marbled skipper	-	-	-	TR
Halpe decorata	- Decorated ace	ES	-	T	TR
Hasora taminatus	- White banded awl	-	-	-	TR
Notocrypta paralysos	- Common banded demon	-	-	-	TR
Pelopidas agna	- Little branded swift	-	-	-	TR
Pelopidas thrax	- Large branded swift	-	-	-	TR
Potanthus pallida	- Indian dart	-	-	-	TR
Potanthus pseudomaesa	- Common dart	-	-	T	TR
Sarangesa dasahara	- Common small flat	-	-	-	TR
Suastus minuta	- Ceylon palm bob	-	-	T	TR
Telicotaancilla	- Dark palmdart	-	-	-	TR
Telicota colon	- Pale palmdart	-	-	-	TR
Udaspesfolus	- Grass demon	-	-	-	TR
Order: Hymenoptera					
Family: Formicidae					
Aneuretus simoni	- Primitive ant	ES	CR	T	HT

Scientific name	CEN	ES	GTA	PrL	NL
	PHYLUM: CHORDATA				
	CLASS: OSTEICHTHYES				
Order: Cypriniformes					
Family: Cyprinidae					
Danio aequipinnatus	-	ES	DD	-	HT*
Danio pathirana	- Barred danio	ES	CR	T	HT
Esomus thermoicos	- Flying barb	ES	-	-	TR
Garra ceylonensis	- Stone sucker	ES	-	T	TR
Garra phillipsi	- Phillips's garra	ES.	DD	T	TR
Horadandia atukorali	- Horadandiya	-	-	-	TR
Labeo fisheri	- Mountain labeo	ES	EN	T	TR
Labeo lankae	- Orange-fin labeo	ES	CR	-	HT*
Puntius asoka	- Asoka barb	ES	EN•	T	HT
Puntius bandula	- Bandula barb	ES	CR	T	HT
Puntius cumingii	- Cuming's barb	ES	LR:cd	T	TR
Puntius martenstyni	- Martenstyn's barb	ES	EN	T	HT
Puntius nigrofasciatus	- Black ruby barb	ES	LR:cd	T	TR
Puntius pleurotaenia	- Black-lined barb	ES	LR:cd	T	TR
Puntius srilankensis	- Blotched filamented barb	ES	-	T	TR
Puntius ticto	- Tic-tac-toe barb	-	-	-	TR
Puntius titteya	- Cherry barb	ES	LR:cd	T	HT
Rasboroides vaterifloris	- Golden rasbora	ES	LR:cd	T	TR
Rasbora wilpita	- Wilpita rasbora	ES	EN	T	TR
Family: Cobitidae					
Lepidocephalichthys jonklaasi	- Jonklaas's loach	ES	EN	T	TR
Family: Balitoridae					
Acanthocobitis urophthalmus	- Tiger loach	ES	LR:cd	T	TR
Schistura notostigma	- Banded mountain loach	ES	-	T	TR

• erroneously included in the 1996 Red List of Threatened Animals as an endangered sub-species.

Scientific name	CEN	ES	GTA	PrL	NL
Order: Siluriformes					
Family: Clariidae					
Clariasbrachysoma	- Walking catfish	ES	-	-	TR
Order: Synbranchiformes					
Family: Synbranchidae					
Ophisternon bengalense	- Swamp eel	-	-	-	TR
Monopterus desilvai	- Blind eel	ES	-	-	HT
Order: Channiformes					
Family: Channidae					
Channaara	- Giant snakehead	ES	-	-	TR
Channaorientalis	- Smooth-breasted snakehead	ES	-	T	TR
Order: Syngnathiformes					
Family: Syngnathidae					
Microphis brachyurus	- Short-tailed pipefish	-	-	-	TR
Order: Cyprinodontiformes					
Family: Belonidae					
Xenentodon cancila	- Freshwater gar-fish	-	-	-	TR
Family: Aplocheilidae					
Aplocheilus dayi	- Day's killifish	ES	-	T	TR
Aplocheilus werneri	- Werner's killifish	ES	-	T	TR
Family: Gobiidae					
Schismatogobius deraniyagalai	- Redneck goby	ES	DD	T	TR
Sicyopterus griseus	-	-	-	T	TR
Sicyopterus halei	- Red-tailed goby	ES	DD	T	TR
Sicyopus jonklaasi	- Lipstick goby	ES	DD	T	TR
Stiphodon martenstyni	- Matenstyn's Goby	BS	-	-	HT

Scientific name	CEN	ES	GTA	PrL	NL
Family: Anabantidae					
Belontia signata	- Combtail	ES	LR:cd	T	TR
Malpulutta kretseri	- Ornate paradise-fish	ES	LR:cd	T	TR
Family: Mastacembelidae					
Macrognathus aral	- Lesser spiny eel	-	DD	-	HT#
	CLASS: AMPHIBIA				
Order: Gymnophiona					
Family: Ichthyophiidae					
Ichthyophis glutinosus	- Common yellowband cecillian	ES	-	T	TR
Ichthyophis orthoplicatus	- Brown cecillian	ES	-	T	TR
Ichthyophis pseudangularis	- Lesser yellowband cecillian	ES	-	T	TR
Order: Salientia					
Family: Bufonidae					
Adenomas kelaartii	- Kelaart's dwarf toad	ES	-	T	TR
Adenomus dasi	- Das's dwarf toad	ES	-	-	HT
Bufo atukoralei	- Atukorale's dwarf toad	ES	-	T	TR
Bufo kotagamai	- Kotagama's dwarf toad	ES	-	-	TR
Bufo noellerti	- Nollert's toad	ES	-	-	TR
Family: Microhylidae					
Microhyla karunaratnei	- Karunaratne's narrow-mouthed frog	ES	-	-	HT
Microhyla zeylanica	- Sri Lankan narrow-mouthed frog	ES	-	T	TR
Ramanella obscura	- Grey-brown pug-snouted frog	ES	-	T	TR
Ramanella palmata	- Half-webbed pug-snouted frog	ES	-	T	TR
Family: Ranidae					
Limnonectes corrugatus	- Corrugated water frog	ES	-	T	TR
Limnonectes greenii	- Sri Lanka paddy field frog	ES	-	T	TR
Limnonectes kirtisinghei	- Montane paddy field frog	ES	-	-	TR
Nannophrys ceylonensis	- Sri Lanka rock frog	ES	-	T	TR

Scientific name	CEN	ES	GTA	PrL	NL
Nannophrys marmorata	- Kirthisinghe's rock frog	ES	-	T	HT
Rana aurantiaca	- Small wood frog	-	-	T	TR
Rana gracilis	- Sri Lanka wood frog	ES	-	T	TR
Philautus eximius	-	ES	-	-	TR
Philautus femoralis	- Round-snout pygmy tree frog	-	-	-	TR
Philautus hypomelas	- Webless pygmy tree frog	ES	-	T	TR
Philautus nasutus	- Sharp-snout pygmy tree frog	ES	-	T	TR
Pseudophilautus temporalis	- Spurless pygmy tree frog	ES	-	T	HT
Polypedates cruciger	- Common hour-glass tree frog	ES	-	T	TR
Polypedates eques	- Saddled tree frog	ES	-	T	TR
Polypedates longinasus	- Sharp-snout saddled tree frog	ES	-	T	TR
Rhacophorus cavirostris	- Tubercle tree frog	ES	-	T	TR
Rhacophorus fergusonianus	- Ferguson's tree frog	ES	-	T	TR
Rhacophorus macropus	- Webtoe tree frog	ES	-	T	TR
Rhacophorus microtympanum	- Microtympanum tree frog	ES	-	T	TR
Rhacophorus reticulatus	- Reticulate tree frog	ES	-	T	TR
Theloderma schmarda	- Conical wart pygmy tree frog	ES	-	T	TR
	CLASS: REPTILIA				
Order: Crocodylia					
Family: Crocodylidae					
Crocodylus palustris	- Marsh crocodile	-	VU	T	TR
Crocodylus porosus	- Saltwater crocodile	-	-	T	TR
Order: Testudines					
Family: Bataguridae					
Melanochelys trijuga	- Parker's black turtle	-	DD	T	TR
Family: Testudinidae					
Geochelone elegans	- Indian star tortoise	-	-	T	TR
Family: Trionychidae					
Lissemys punctata	- Flapshell turtle	-	-	T	TR

Scientific name	CEN	ES	GTA	PrL	NL
Order: Sauria					
Family: Agamidae					
Calotes ceylonensis	- Paintedlip lizard	ES	-	T	TR
Calotes liocephalus	- Crestless lizard	ES	EN	T	TR
Calotes liolepis	- Whistling lizard	ES	-	T	TR
Calotes nigrilabris	- Blackcheek lizard	ES	-	T	TR
Ceratophora aspera	- Roughhorn lizard	ES	-	T	TR
Ceratophora erdeleni	- Erdelen's horn lizard	ES	-	-	HT
Ceratophora karu	- Karunaratne's horn lizard	ES	-	-	HT
Ceratophora stoddartii	- Rhinohorn lizard	ES	-	T	TR
Ceratophora tennentii	- Leafnose lizzard	ES	EN	T	HT
Cophotis ceylanica	- Pygmy lizard	ES	-	T	HT
Lyriocephalus scutatus	- Humpsnout lizard	ES	-	T	TR
Otocryptis wiegmanni	- Sri Lanka kangaroo lizard	ES	-	T	TR
Family: Chameleonidae					
Chamaeleo zeylanicus	- Sri Lanka chameleon	-	-	T	TR
Family: Gekkonidae					
Calodactylodes illingworthi	- Sri Lanka golden-gecko	ES	-	T	TR
Cnemaspis jerdoni	- Jerdon's day-gecko	ES	-	T	TR
Cnemaspis podihuna	- Dwarf day-gecko	ES	-	T	HT
Cnemaspis tropidogaster	- Roughbelly day-gecko	-	-	-	TR
Cosymbotus platyurus	- Frilltail gecko	-	-	-	TR
Gonydactylus frenatus	- Great forest-gecko	ES	-	T	TR
Geckoella collegalensis	- Collegal rock-gecko	-	-	-	TR
Geckoella triedrus	- Spotted bowfinger gecko	ES	-	T	TR
Geckoella yakhuna	- Blotch bowfinger gecko	ES	-	T	TR
Hemidactylus depressus	- Kandyan gecko	ES	-	T	TR
Family: Scincidae					
Chalcidoseps thwaitesii	- Fourtoe snake skink	ES	-	T	TR
Dasia halianus	- Haly's tree skink	-	-	T	TR
Lankascincus deignani	- Deignan's Lanka skink	ES	-	T	TR
Lankascincus deraniyagalae	- Deraniyagala's Lanka skink	ES	-	T	TR

Scientific name	CEN	ES	GTA	PrL	NL
Lankascincus gansi	- Gans's Lanka skink	ES	-	T	TR
Lankascincus taprobanensis	- Smooth Lanka skink	ES	-	T	TR
Lankascincus taylori	- Taylor's Lanka skink	ES	-	T	TR
Mabuya beddomii	- Beddome's striped skink	-	-	-	TR
Mabuya madaraszi	- Spotted skink	ES	-	-	TR
Nessia bipes	- Smith's snake skink	-	-	T	TR
Nessia burtonii	- Three-toe snake skink	ES	-	T	TR
Nessia deraniyagalai	- Deraniyagala's snake skink	ES	-	T	TR
Nessia didactylus	- Two-toe snake skink	ES	-	T	TR
Nessia hickanala	- Sharkhead snake skink	ES	-	T	HT*
Nessia layardi	- Layard's snake skink	ES	-	T	TR
Nessia monodactylus	- Toeless snake skink	ES	-	T	TR
Nessia sarasinorum	- Sarasin's snake skink	ES	-	T	TR
Sphenomorphus dorsicatenatus	- Catenated litter skink	ES	-	T	HT
Family: Lacertidae					
Ophisops minor	- Lesser snake-eye lizard	-	-	T	TR
Order: Serpentes					
Family: Typhlophidae					
Typhlops ceylonicus	-	ES	-	T	HT
Typhlops lankaensis	-	ES	-	T	HT
Typhlops leucomelas	- Pied typhlops	ES	-	T	TR
Typhlops minis	- Jan's blind snake	ES	-	T	TR
Typhlops porrectus	-	-	-	T	TR
Family: Uropeltidae					
Cylindrophis maculata	- Pipe snake	ES	-	T	TR
Rhinophis blythii	- Blyth's earth snake	ES	-	T	TR
Rhinophis dorsimaculatus	-	ES	-	T	HT
Rhinophis oxyrhynchus	- Schneider's earth snake	ES	-	T	TR
Rhinophis philippinus	- Peter's earth snake	ES	-	T	TR
Rhinophis trevelyana	- Trevelyan's earth snake	ES	-	T	TR
Rhinophis tricolorata	-	ES	-	T	TR
Uropeltisruhunae	-	ES	-	T	HT

Scientific name	CEN	ES	GTA	PrL	NL
Family: Boidae					
Eryx conica	- Sand boa	-	-	T	TR
Python molurus	- Indian python	-	LR:nt	T	TR
Family: Acrochordidae					
Acrochordus granulatus	- Wart snake	-	-	T	TR
Family: Colubridae					
Aspidura brachyorrhos	- Boie's roughside	ES	-	T	TR
Aspidura copei	- Cope's roughside	ES	-	T	TR
Aspidura deraniyagalae	- Deraniyagala's roughside	ES	-	T	HT
Aspidura drummondhayi	- Drummond-Hay's roughside	ES	-	T	TR
Aspidura guentheri	- Gunther's roughside	ES	-	T	TR
Aspidura trachyprocta	- Common roughside	ES	-	T	TR
Balanophis ceylonensis	- Sri Lanka keel-back	ES	-	T	TR
Boiga barnesii	- Barnes's cat snake	ES	-	T	TR
Cercaspis carinata	- Sri Lanka wolf snake	ES	-	T	TR
Chrysopelea ornata	- Ornate flying snake	-	-	T	TR
Chrysopelea taprobanica	-	ES	-	T	TR
Dendrelaphis oliveri	- Oliver's bronze-back	ES	-	T	TR
Dryocalamus gracilis	- Scarce bridal snake	-	-	T	TR
Dryocalamus nympha	- Bridal snake	-	-	T	TR
Gerardia prevostianus	- Gerard's water snake	-	-	T	TR
Haplocercus ceylonensis	- Black spind snake	ES	-	T	TR
Lycodon osmanhilli	-	ES	-	T	TR
Oligodon calamarius	- Templeton's kukri snake	ES	-	T	TR
Oligodon sublineatus	- Dumeril's kukri snake	ES	-	T	TR
Xenochrophis asperrimus	- Common pond snake	ES	-	T	TR
Family: Elapidae					
Bungarus ceylonicus	- Sri Lanka krait	ES	-	T	TR
Family: Viperidae					
Hypnale nepa	- Millard's hump-nosed viper	ES	-	T	TR
Hypnale walli	- Gloyd's hump-nosed viper	ES	-	T	TR
Trimeresurus trigonocephala	- Green pit viper	ES	-	T	TR

Scientific name	CEN	ES	GTA	PrL	NL
	CLASS: AVES				
Order: Pelicaniformes					
Family: Pelecanidae					
Pelecanus philippensis	- Spot-billed pelican	-	VU	-	TR
Family: Phalacrocoracidae					
Phalacrocorax carbo	- Great cormorant	-	-	T	TR
Order: Ciconiiformes					
Family: Ciconiidae					
Ephippiorhynchus asiaticus	- Black-necked stork	-	-	T	TR
Leptoptilos javanicus	- Lesser adjutant	-	VU	T	TR
Order: Falconiformes					
Family: Accipitridae					
Aviceda jerdoni	- Jerdon's Baza	-	-	T	TR
Hieraaetus kienerii	- Rufous-bellied eagle	-	-	T	TR
Spizaetus nipalensis	- Mountain hawk eagle	-	-	T	TR
Family: Falconidae					
Falco peregrinus	- Peregrine falcon	-	-	T	TR
Falco tinnunculus	- Common kestrel	-	-	T	TR
Order: Galliformes					
Family: Phasianidae					
Francolinus pictus	- Painted francolin	-	-	T	TR
Francolinus pondicerianus	- Grey francolin	-	-	-	TR
Galloperdix bicalcarata	- Sri Lanka spur-fowl	ES	-	T	TR
Perdicula asiatica	- Jungle bush-quail	-	-	-	TR

Scientific name	CEN	ES	GTA	PrL	NL
Order: Gruiformes					
Family: Rallidae					
Fulica atra	- Common coot	-	-	-	TR
Gallirallus striatus	- Slaty-breasted banded rail	-	-	T	TR
Porzana fusca	- Ruddy-breasted crake	-	-	T	TR
Order: Charadriiformes					
Family: Charadriidae					
Vanellus malabaricus	- Yellow-wattled Lapwing	-	VU	T	TR
Family: Rostratulidae					
Rostratula benghalensis	- Great painted snipe	-	-	T	TR
Family: Glareolidae					
Burhinus recurvirostris	- Great thick knee	-	-	-	TR
Order: Columbiformes					
Family: Columbidae					
Columba livia	- Blue rock pigeon	-	-	-	TR
Columba torringtoni	- Sri Lanka wood pigeon	ES	VU	T	TR
Streptopelia decaoco	- Eurasian collared dove	-	-	-	TR
Treron phoenicoptera	- Yellow-footed pigeon	-	-	T	TR
Order: Cuculiformes					
Family: Cuculidae					
Cuculus varius	- Common hawk-couckoo	-	-	-	TR
Phaenicophaeus leshenaulti	- Sirkeer malkoha	-	-	-	TR
Phaenicophaeus pyrrhocephalus	- Sri Lanka Red-faced malkoha	ES	VU	T	TR
Order: Psittaciformes					
Family: Psittacidae					
Loriculus beryllinus	- Sri Lanka hanging parrot	ES	-	-	TR

Scientific name	CEN	ES	GTA	PrL	NL
Psittacula calthrope	- Sri Lanka Layard's parakeet	ES	-	-	TR
Family: Centropodidae					
Centropus chlororhynchus	- Sri Lanka green-billed coucal	ES	EN	T	TR
Order: Strigiformes					
Family: Tytonidae					
Phodilus badius	- Oriental bay owl	-	-	T	TR
Tyto alba	- Barn owl	-	-	T	TR
Family: Strigidae					
Glaucidium castanonotum	- Sri Lanka chestnut-backed owlet	ES	LR:nt	T	TR
Order: Caprimulgiformes					
Family: Caprimulgidae					
Tachymarittismelba	- Alpine swift	-	-	-	TR
Hirundapus giganteus	- Brown-backed needle-tail	-	-	-	TR
Order: Coraciiformes					
Family: Alcedinidae					
Alcedo meninting	- Blue-eared kingfisher	-	-	T	TR
Family: Coraciidae					
Eurystomus orientalis	- Dollar-bird	-	-	T	TR
Family: Bucerotidae					
Ocyceros gingalensis	- Sri Lanka gray hornbill	ES	-	T	TR
Order: Piciformes					
Family: Megalaimidae					
Megalaima flavifrons	- Sri Lanka yellow-fronted barbet	ES	-	-	TR
Family: Picidae					
Celeus vrachyurus	- Roufous woodpecker	-	-	-	TR

Scientific name	CEN	ES	GTA	PrL	NL
Chrysocolaptes festivus	- White-naped woodpecker	-	-	T	TR
Hirundo dumicola	- Hill swallow	-	-	-	TR
Picus xanthopygaeus	- Streak-throated woodpecker	-	-	T	TR
Order: Passeriformes					
Family: Laniidae					
Lanius schach	- Long-tailed shrike	-	-	-	TR
Family: Sturnidae					
Gracula ptilogenys	- Sri Lanka myna	ES	-	T	TR
Sturnus albofrontatus	- Sri Lanka white-faced starling	ES	LR:nt	T	TR
Family: Corvidae					
Urocissa ornata	- Sri Lanka blue magpie	ES	VU	T	TR
Family: Pycnonotidae					
Pycnonotus penicillatus	- Sri Lanka yellow-eared bulbul	ES	LR:nt	T	TR
Family: Sylviidae					
Bradypterus palliseri	- Sri Lanka bush warbler	ES	LR:nt	T	TR
Garrulax cinereifrons	- Ashy-headed babbler	ES	VU	T	TR
Pellorneum fuscocapillum	- Brown-capped babbler	ES	-	-	TR
Turdoides rufescens	- Sri Lanka orange-billed babbler	ES	-	T	TR
Family: Muscicapidae					
Eumyias sordida	- Sri Lanka dull lue flycatcher	ES	LR:nt	T	TR
Myiophoneus blighi	- Sri Lanka whistling thrush	ES	EN	T	TR
Saxicola caprata	- Pied bushchat	-	-	-	TR
Turdus merula	- Eurasian blackbird	-	-	-	TR
Zoothera dauma	- Scaly thrush	-	-	T	TR
Zoothera spiloptera	- Sri Lanka spotted-winged thrush	ES	LR:nt	T	TR
Family: Passeridae					
Lonchura kelaarti	- Black-throated munia	-	-	T	TR
Lonchura malabarica	- White-throated silver-bill	-	-	-	TR

Scientific name	CEN	ES	GTA	PrL	NL
Family: Nectariniidae					
Dicaeum Vincens	- Sri Lanka Legge's flowerpecker	ES	LR:nt	T	TR
Family: Zosteropidae					
Zosterops ceylonensis	- Sri Lanka white-eye	ES	-	-	TR
CLASS: MAMMALIA					
Order: Insectivora					
Family: Soricidae					
Crocidura horsfieldi	- Horsfield's shrew	-	-	-	TR
Crociduramiya	- Long-tailed shrew	ES	EN	T	TR
Feroculus feroculus	- Kelaart's long-clawed shrew	ES	EN	T	TR
Solisorex pearsoni	- Pearson's long-clawed shrew	ES	EN	T	TR
Suncus etruscus	- Pygmy shrew	-	-	-	TR
Suncus fellowesgordoni	-	ES	EN	-	TR
Suncus montanus	- Sri Lanka highland shrew	ES	VU	-	TR
Suncus zeylanicus	- Sri Lanka Jungle shrew	ES	EN	T	TR
Order: Chiroptera					
Family: Molossidae					
Chaerephonplicata	- Common wrinkled-lip bat	-	-	-	TR
Tadaridaaegyptiaca	- Continental wrinkled-lip bat	-	-	T	TR
Family: Rhinolophidae					
Hipposideros fulvus	- Fulvous leaf nosed bat	-	-	-	TR
Hipposideros galeritus	- Dekhan leaf-nosed bat	-	-	T	TR
Family: Vespertilionidae					
Kerivoula hardwickii	- Malpas's bat	-	-	T	TR
Murina cyclotis	- Tube-nosed bat	-	-	T	TR
Pipistrellus affinis	- Grizzled pipistrel	-	-	-	TR

Scientific name	CEN	ES	GTA	PrL	NL
Order: Primata					
Family: Loridae					
Loris tardigradus	- Slender loris	-	YG	T	TR
Family: Cercopithecidae					
Trachypithecus vetulus	- Purple-faced leaf monkey	ES	VU	T	TR
Order: Carnivora					
Family: Felidae					
Felis chaus	- Jungle cat	-	-	T	TR
Panthera pardus	- Leopard	-	EN*	T	TR
Prionailurus rubiginosus	- Rusty-spotted cat	-	DD	T	TR
Prionailurus viverrinus	- Fishing cat	-	LR:nt	T	TR
Family: Herpestidae					
Herpestes vitticollis	- Striped-neck mongoose	-	-	T	TR
Family: Mustelidae					
Lutra lutra	- Eurasian otter	-	-	T	TR
Family: Ursidae					
Melursus ursinus	- Sloth bear	-	VU	T	TR
Family: Viverridae					
Paradoxurus zeylonensis	- Golden palm civet	ES	-	T	TR
Order: Proboscidea					
Family: Elephantidae					
Elephas maximus	- Asian elephant	-	EN	T	TR

*sub-species of *P. pardus (P. pardus kotiya)* is endangered.

Scientific name	CEN	ES	GTA	PrL	NL
Order: Artiodactylia					
Family: Cervidae					
Axis porcinus	- Hog deer	-	-	-	TR
Order: Rodentia					
Family: Muridae					
Mus fernandoni	- Sri Lanka spiny mouse	ES	-	T	TR
Mus mayori	- Spiny mouse	ES	LR:nt	T	TR
Rattus montanus	- Nillu rat	ES	CR	T	TR
Srilankamys ohiensis	- Bicoloured rat	ES	LR:nt	T	TR
Vandeleuria nolthenii	- Sri lanka long-tailed tree mouse	ES	VU	T	TR
Family: Sciuridae					
Petaurista philippensis	- Grey flying squirrel	-	-	T	TR
Petinomys fuscocapillus	- Small flying squirrel	-	-	T	TR

SPECIES OF FAUNA THAT WERE EVALUATED AND FOUND TO BE DATA DEFICIENT

Scientific name	CEN	ES	GTA	PrL	NL
	PHYLUM: MOLLUSCA				
	CLASS: GASTROPODA				
Order: Pupilloidea					
Family: Streptaxidae					
lndoartemon cingalensis	-	ES	-	T	DD
Indoartemon gracilis	-	ES	-	T	DD
Perrottetia ravanae	-	ES	-	-	DD
Sinoennea plangucula	-	-	-	-	DD
Family: Ariophantidae					
Euplecta binoyaensis	-	ES	-	T	DD
Euplecta concavospira	-	ES	-	T	DD
Euplecta laevis	-	ES	-	T	DD
Euplecta prestoni	-	ES	-	T	DD
Euplecta trimeni	-	ES	-	T	DD
Euplecta verrucula	-	ES	-	T	DD
Kaliella barrakporensis	-	-	-	-	DD
Kaliella colletti	-	ES	-	T	DD
Kaliella delectabilis	-	ES	-	T	DD
Kaliella leithiana	-	ES	-	T	DD
Kaliella salicensis	-	ES	-	T	DD
Macrochlamys indica	-	-	-	-	DD
Macrochlamys kandiensis	-	ES	-	T	DD
Macrochlamys nepas	-	ES	-	T	DD
Macrochlamys umbrina	-	ES	-	T	DD
Microcystina bintennensis	-	ES	-	T	DD
Ratnadvipia edgariana	-	ES	-	T	DD
Satiella membranacea	-	ES	-	T	DD
Sitala operiens	-	ES	-	-	DD
Sitala phyllophila	-	ES	-	T	DD
Sitala pyramidalis	-	ES	-	T	DD

Scientific name	CEN	ES	GTA	PrL	NL
Family: Limacidae					
Deroceras reticulatum	-	-	-	-	DD
Family: Endodontidae					
Philalanka secessa	-	ES	-	T	DD
Philalanka liratula	-	ES	-	T	DD
Philalanka lamcabensis	-	ES	-	T	DD
Philalanka depressa	-	ES	-	T	DD
Philalanka circumsculpta	-	ES	-	T	DD
Philalanka sinhila	-	ES	-	T	DD
Ruthvenia caliginosa	-	ES	-	T	DD
Thysanota elegans	-	ES	-	T	DD
Thysanota eumita	-	ES	-	T	DD
Thysanota hispida	-	ES	-	-	DD
Family: Corillidae					
Corilla lesleyae	-	ES	-	-	DD
Family: Valloniidae					
Pupisoma longstaffae	-	ES	-	T	DD
Pupisoma miccyla	-	ES	-	T	DD
Family: Pyramidulidae					
Pyramidula halyi	-	ES	-	T	DD
Family: Enidae					
Mirus panos	-	ES	-	T	DD
Family: Pupillidae					
Microstele muscerda	-	-	-	-	DD
Nesopupa cinghalensis	-	ES	-	-	DD
Family: Chondrinidae					
Gastrocoptamimula	-	ES	-	-	DD

Scientific name	CEN	ES	GTA	PrL	NL
Family: Clausilidae					
Phaedusa ceylanica	-	ES	-	T	DD
Family: Subulinidae					
Allopeas mariae	-	ES	-	T	DD
Allopeas pussilus	-	ES	-	T	DD
Allopeas sykesi	-	ES	-	T	DD
Paropeas achatinaceum	-	-	-	-	DD
Zootecus insularis	-	-	-	-	DO
Family: Glessulidae					
Glessula capillacea	-	-	-	-	DD
Glessula fulgens	-	ES	-	T	DD
Glessula layardi	-	ES	-	T	DD
Glessula nitens	-	ES	-	T	DD
Glessula pachycheila	-	ES	-	T	DD
Glessula prestoni	-	ES	-	T	DD
Glessula punctogallana	-	ES	-	T	DD
Glessula pusilla	-	-	-	-	DD
Glessula sattaraensis	-	-	-	-	DD
Glessula sinhila	-	ES	-	T	DD
Glessula simoni	-	ES	-	-	DD
Glessula veruina	-	ES	-	T	DD
Family: Ferussaciidae					
Digoniaxis cingalensis	-	ES	-	T	DD
Family: Succineidae					
Succinea ceylanica	-	-	-	-	DD
Family: Cyclophoridae					
Cyathopoma album	-	-	-	-	DD
Cyathopoma artatum	-	ES	-	-	DD
Cyathopoma ceylanicum	-	ES	-	T	DD
Cyathopoma colletti	-	ES	-	-	DD

Scientific name	CEN	ES	GTA	PrL	NL
Cyathopoma conoideum	-	ES	-	-	DD
Cyathopoma innocens	-	ES	-	-	DD
Cyathopoma mariae	-	ES	-	-	DD
Cyathopoma ogdenianum	-	ES	-	T	DD
Cyathopoma perconoideum	-	ES	-	T	DD
Cyathopoma serendibense	-	ES	-	T	DD
Cyathopoma turbinatum	-	ES	-	T	DD
Cyathopoma uvaense	-	ES	-	T	DD
Lagocheilus occulta	-	ES	-	T	DD
Lagocheilus vesca	-	ES	-	T	DD
Leptopoma apicatum	-	ES	-	T	DD
Leptopoma elatum	-	ES	-	-	DD
Leptopomoides conulus	-	ES	-	T	DD
Leptopomoides flammens	-	ES	-	-	DD
Leptopomoides halophilus	-	-	-	-	DD
Leptopomoides orophilus	-	ES	-	T	DD
Leptopomoides poecilus	-	ES	-	-	DD
Pterocyclus troscheli	-	ES	-	-	DD
Theobaldius liliputianus	-	ES	-	T	DD
Theobaldius loxostoma	-	ES	-	T	DD
Theobaldius parapsis	-	ES	-	T	DD
Theobaldius thwaitesi	-	ES	-	T	DD
Tortulosa barnaclei	-	ES	-	-	DD
Tortulosa connectens	-	ES	-	T	DD
Tortulosaduplicata	-	ES	-	-	DD
Tortulosahartleyi	-	ES	-	-	DD
Tortulosa leucocheilus	-	ES	-	-	DD
Tortulosaprestoni	-	ES	-	-	DD
Tortulosarugosa	-	ES	-	T	DD
Tortulosasmithi	-	ES	-	-	DD
Tortulosathwaitesi	-	ES	-	-	DD
Family: Cochlostomidae					
Nicida catathymia	-	ES	-	-	DD
Nicida ceylanica	-	ES	-	T	DD
Nicida delectabilis	-	ES	-	-	DD

Scientific name	CEN		ES	GTA	PrL	NL
Nicida lankaensis	-		ES	-	T	DD
Nitida pedronis	-		ES	-	T	DD
Nicida prestoni	-		ES	-	-	DD
Family: Truncatellidae						
Truncatella ceylanica	-		ES	-	T	DD
		PHYLUM: ARTHROPODA				
		CLASS: INSECTA				
Order: Odonata						
Family: Aeshnidae						
Hemianax ephippiger	-		-	-	-	DD
Family: Libellulidae						
Aethriamanta brevipennis	-		-	-	-	DD
Palpopleura sexmaculata	-		-	-	-	DD
Trithemis kirbyi	-		-	-	-	DD
Order: Lepidoptera						
Family: Pieridae						
Eurema andersoni	-	One-spot grass yellow	-	-	-	DD*
Eurema laeta	-	Spotless grass yellow	-	-	-	DD*
Family: Danaidae						
Euploea Sylvester	-	Double-banded crow	-	-	-	DD
Family: Nymphalidae						
Junonia orithya	-	Blue pansy	-	-	-	DD*
Symphaedra nais	-	Baronet	-	-	T	DD*
Family: Libytheidae						
Libythea myrrha	-	Club beak	-	-	T	DD

Scientific name	CEN	ES	GTA	PrL	NL
Family: Satyridae					
Mycalesis visala	- Tamil bushbrown	-	-	-	DD
Family: Lycaenidae					
Actyolepis lilacea	- Hampson's hedge blue	-	-	T	DD
Arhopala bazaloides		-	-	-	DD
Arhopala ormistoni	- Ormiston's oakblue	ES	-	T	DD*
Catochrysops panormus	- Silver forget-me-not	-	-	-	DD*
Celastrina lavendularis	- Plain hedge blue	-	-	-	DD*
Chilades parrhasius	- Small cupid	-	-	-	DD
Horaga albimacula	- Brown onyx	-	-	T	DD*
Ionolyce helicon	- Pointed lineblue	-	-	-	DD
Jamides caruscans	- Ceylon cerulean	ES	-	T	DD
Nacaduba berenice	- Rounded six-line blue	-	-	-	DD
Nacaduba beroe	- Opaque six-line blue	-	-	-	DD
Nacaduba calauria	- Dark ceylon six-line blue	-	-	T	DD
Nacaduba ollyetti	- Woodhouse's four-line blue	ES	-	T	DD*
Prosotas noreia	- White-tipped lineblue	ES	-	T	DD*
Rapala iarbus	- Indian red flash	-	-	T	DD*
Rapala manea	- Slate flash	-	-	-	DD
Rapala varuna	- Indigo flash	-	-	-	DD
Spindasis nubilus	- Clouded silverline	ES	-	T	DD
Spindasis schistacea	- Plumbeous silverline	-	-	-	DD*
Tajuria arida	- Ceylon indigo royal	ES	-	-	DD*
Tarucus callinara	- Butler's spotted pierrot	-	-	-	DD
Udara akasa	- White hedge blue	-	-	T	DD
Udara singalensis	- Singalese hedge blue	-	-	T	DD
Virachola perse	- Large guava blue	-	-	T	DD*
Family: Hesperiidae					
Bibasis sena	- Orange-tail awl	-	-	T	DD
Borbo cinnara	- Wallace's swift	-	-	-	DD*
Caprona alida	- Ceylon golden angle	-	-	T	DD
Cattoris philippina	- Philippine swift	-	-	-	DD*
Gangara lebadea	- Banded redeye	-	-	T	DD
Halpe egena	- Rare ace	ES	-	T	DD*

Scientific name	CEN	ES	GTA	PrL	NL
Hasora chromus	- Common banded awl				DD*
Notocrypta curvifascia	- Restricted demon	-	-	-	DD*
Tagiades litigiosa	- Water snow flat	-	-	-	DD*
	PHYLUM: CHORDATA				
	CLASS: AMPHIBIA				
Order: Salientia					
Family: Bufonidae					
Adenomus kandianus	- Kandian dwarf toad	FS	-	-	DD*
Family: Ranidae					
Nannophrys guentheri	- Guenther's rock frog	ES	-	T	DD
Family: Rhacophoridae					
Philautus stictomerus		ES	-	-	DD*
	CLASS: REPTILIA				
Order: Sauria					
Family: Lacertidae					
Ophisopsleschenaultii	- Leschenault's snake-eye lizard	-	-	T	DD
Family: Scincidae					
Mabuya floweri	- Taylor's skink	ES	-	-	DD
Riopa singha	- Taylor's skink	ES	-	T	DD
Sphenomorphus dussumieri	- Dussumier's litter skiink	-	-	-	DD*
Sphenomorphus megalops	- Annandale's litter skink	ES	-	T	DD*
Sphenomorphus rufogulus	- Red-throat litter skink	ES	-	-	DD
Sphenomorphus striatopunctatus	- Ahl's litter skink	ES	-	T	DD*
Order: Serpentes					
Family: Typhlophidae					
Typhlops malcolmi	-	ES	-	T	DD*
Tvphlops tenebrarum	-	ES	-	T	DD*

Scientific name	CEN	ES	GTA	PrL	NL
Typhlops veddae	-	ES	-	T	DD*
Typhlops violaceus	-	ES	-	T	DD*
Family: Uropeltidae					
Platyplectrurus madurensis	-	-	-	T	DD*
Pseudotyphlops philippinus	- Large shield-tail	ES	-	T	DD*
Rhinophis drummondhayi	- Drummond-Hay's earth snake	ES	-	T	DD*
Rhinophis porrectus	- Willey's earth snake	ES	-	T	DD
Rhinophis punctatus	- Muller's earth snake	ES	-	T	DD*
Uropeltis melanogaster	- Gray's earth snake	ES	-	T	DD
Uropeltis phillipsi	- Phillips's earth snake	ES	-	T	DD*
Family: Colubridae					
Argyrogena fasciolatus	- Banded racer	-	-	-	DD*
Boiga beddomei	- Beddom's cat snake	-	-	-	DD

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PART III

THE LIST OF THREATENED FLORA OF SRI LANKA

BACKGROUND

The formulation of criteria to assess indigenous species of flora in terms of the 'threat of extinction' involved extensive reference of the volumes of the *Revised Handbook to the Flora of Ceylon* (Dassanayake and Fosberg 1980-1991; Dassanayake, Fosberg and Clayton 1994-1995; Dassanayake and Clayton 1996-1999) and the final reports of the recently concluded National Conservation Review of the natural forests of the country (IUCN/ WCMC/FAO 1997). Several sets of criteria developed elsewhere to evaluate species for threat[1] were also studied. Finally, a set of eight criteria against which species could be evaluated was formulated.

The draft criteria were subject to peer review at workshops held in Colombo on 23 December 1997, and in Peradeniya on 24 March 1998. Subsequently the criteria were tested and revised in consultation with subject specialists. Care was taken to ensure that the criteria finally adopted confirmed as far as possible with the criteria used for the fauna.

The criteria for assessment of flora, as with the criteria formulated to assess the fauna, are based on causal factors that contribute to the risk of extinction of a species and are, directly or indirectly, related to the "threats" which underlie the new IUCN 1994 criteria. They also take into account the nature and extent of data available on the country's flora.

The draft list of threatened flora prepared by the team was subject to intensive review at an experts' workshop held on 20 July 1999 at the National Herbarium in Peradeniya. The data-sets and species' distribution maps used for assessment of "threat" were made available to the participants for review at the workshop, and used to refine the scores assigned to a species where necessary.

A limitation in the present list of nationally threatened flora is that it is confined to the flowering plants, and among this group to less than 1000 species. In many of the plant families, only some species have been evaluated, while some families have not been addressed at all, due to data and time limitations. The criteria may also not be applicable to species that proliferate in disturbed environments. It is hoped that during the preparation of subsequent lists of nationally threatened flora it will be possible, through further refining of the criteria, to permit assessment of all flowering plants, and to evaluate species that have been left out during the present work. As with both IUCN lists of globally threatened fauna and flora, the current list of threatened flora is admittedly a partial list. However, it is hoped that this exercise forms the first step towards the use of scientific and objective criteria for the assessment of threat to Sri Lanka's indigenous flora.

THE CRITERIA

Based on the five broad factors adopted for assessment of the "risk of extinction" for a species (defined in Part 1) eight criteria were used to score species for threat. As with the fauna, each species was scored in terms of the criteria, and an average score was derived by dividing the total score awarded to a species by the number of criteria

[1] including the 1994 IUCN Red List Global Criteria

against which it was assessed. If data were not available to evaluate a species against at least four criteria, it was placed under the **Data Deficient** category. The criteria and scoring system used are summarised in **Table 3.1**

Table 3.1: Criteria and Scoring System for Assessment of Flora

CRITERIA	Score of 5	Score of 4	Score of 3	Score of 2	Score of 1	Score of 0
Extent of geographical range and rarity (km^2)	very rare; found in one zone	very rare; found in more than one zone	Rare; found in one zone	rare; found in more than one zone	common, but found in one zone	Common and found in <more than one zone
Area of occupancy (km^2)	≤ 200	300-500	600-1000	1100-3000	3100-5000	>5000
Restricted populations	Very restricted	-	-	-	-	-
Habitat status (per cent of habitat under protection)	0-25%	26-40%	41-55%	56-65%	66-75%	>75%
Intrinsic characters	≥10+	9+ to 8+	7+ to 6+	5+ to 4+	3+	≤ 2
Human impact on the habitat	≥8+	7+ to 6+	5+ to 4+	3+ to 2+	1+	Recorded as no impact
Recorded human impact on the species	10 points	9 points	8 to 7 points	6 to 5 points	4 to 3 points	2 points
Endemism/ global threat status	Endemic		Globally threatened			Others

METHODS: FURTHER DEVELOPMENT OF CRITERIA AND EVALUATION OF SPECIES

Data collation

Distribution data on indigenous flora were collated from published sources as well as from unpublished sources, such as the National Conservation Review (NCR), and data-sets provided by individual field researchers. Information on selected intrinsic characters, nature of habitat, and threats due to human use and habitat destruction were also recorded. References to published and unpublished documents used to obtain data for evaluation of species are given in the list of data sources. Individuals who provided unpublished data to the team are listed in the acknowledgements.

Nomenclature

The nomenclature used mainly follow volumes I to XIII of the *Revised Handbook to the Flora of Ceylon* (Dassanayake and Fosberg 1980 -1991; Dassanayake, Fosberg and Clayton 1994 -1995; Dassanayake and Clayton 1996 -1999) and in respect of the Dipterocarpaceae, the nomenclature follows Kostermans (1992).

Definition of criteria and methods of data analysis

Distribution data were obtained from the *Revised Handbook to the Flora of Ceylon* and the final reports of recent surveys such as the National Conservation Review (IUCNAVCMC/FAO 1997). The distribution of each species was plotted on a grid map of Sri Lanka **(Appendix 3)** in which a grid square corresponds to 100 km^2. A grid square was deemed occupied when a recorded location fell within any part of it. The distribution maps were used to calculate the "area of occupancy" and habitat status (in terms of legal protection) of species, to score distribution in terms of bioclimatic zones (i.e. geographical range) and rarity, and to discern fragmented /restricted populations. Data sheets containing the required information were prepared for all species to facilitate data analysis.

The eight criteria used are:

- ***Extent of geographic range and rarity:*** Species were evaluated on a six-point scale based on two sub-criteria:
  i. *DISTRIBUTION IN THE ISLAND* within the bioclimatic zones defined by Wijesinghe *et al.* (1993); namely low and mid-country wet zone; dry zone; low and mid-country intermediate zone; montane zone (defined by combining both montane wet zone and montane intermediate zone) and arid zone.
  ii. *PUBLISHED COMMENTS ON THE ABUNDANCE* of a species (i.e. rare, common etc.) within these climatic zones, mainly as stated in the *Revised Handbooks to the Flora of Ceylon.*

  In the absence of quantitative data, the population size of species within the different bioclimatic zones was assessed by taking into account the documented perceptions of experienced persons who have been working on the Sri Lankan flora since 1975.

  Data analysis: A species can be deemed to be rare on account of its low abundance, habitat specificity and/or limited geographic distribution. Accordingly, rarity was at its highest in respect of species judged to be rare in all three counts. This criterion was scored as follows: very rare, found in one zone (5); very rare, found in more than one zone (4); rare, found in one zone (3); rare, found in more than one zone (2); common, but found only in one zone (1); common and found in more than one zone (0).

- ***Area of occupancy:*** Defined as the area within the geographical range of a species ("extent of occurrence") that is definitely known to be occupied by it. This measure reflects the fact that a species may not occur throughout its "extent of occurrence" as it may contain unsuitable habitats (adapted from IUCN 1994).

  Data analysis: Data on distribution were plotted on grid maps **(Appendix 3)** and the number of grid squares in which a species was recorded was multiplied by the area covered by a single square. This criterion was scored on a six-point scale using the cut-off points given in **Table 3.1.**

- ***Species with highly fragmented or restricted populations.*** A restricted population was defined as the occurrence of very small populations (where known), or a highly fragmented distribution of a species as depicted on the grid map. A highly fragmented or severely restricted population or distribution was deemed to indicate that members of such species are found in small sub-populations, that are liable to go extinct, with a low probability of recolonisation.

  Data analysis: Species for which population fragmentation/restriction was perceived to have reached a critical level were given a score of 5.

- ***Habitat status:*** Defined as the per cent of the "area of occupancy" of a species which is under legal protection.

  Data analysis: The grid map of Sri Lanka was overlaid with a map of the Protected Areas of Sri Lanka, and the area under Protection in each grid square was calculated and marked on a map **(Appendix 4).** The species' distribution maps were overlaid with this, and the percent of the area of occupancy falling within Protected Areas was calculated as follows:

  $$\text{Per cent Protected Area} = \frac{\text{Total protected area within the area of occupancy}}{\text{Total area of occupancy}} \times 100$$

  Species were scored on a six-point scale from 0-5 using cut-off points given in **Table 3.1.**

- ***Intrinsic characters:*** Defined as selected features, or characters, that have a bearing on the survival of a species and its ability to withstand changes in its external environment. These features are related to interdependence, rate of mortality and regeneration capacity of species. Information to evaluate species against this criterion was scarce with regard to shrubs, herbs and epiphytes.

  Data analysis: Depending on their importance in aggravating the threat to a species, the characters carried one, two or three pluses, the higher the number of pluses the greater the importance. Where a particular character did not apply to a species, the species received no score for it. On this basis a species was scored for the different characters and the sum of + points received for the above characteristics were scored on a six-point scale of 0-5 as follows: $\geq$10+ (=5); 9+ and 8+ (=4); 7+ and 6+ (=3); 5+ and 4+ (=2); 3 + (=1), $\leq$ 2 + (=0)

Intrinsic characters	Score
Epiphyte /Parasite	+
Species found only in the wet zone*	+++
Species found only in the intermediate zone#	++
Species found only in dry/arid zones#	+
Species found only in forests	+
Habitat / micro habitat specificity	+ to +++ **
Flowering restricted / periodical/ depends on environmental conditions	+ to +++ **
Poor seed formation/germination/seedling establishment	+ to +++**
Susceptible to diseases or harmful pests	+
Competition/threat by invasive species	++
Dioecious plant	++
Small isolated sub-populations	+ to +++**

to capture different levels of interdependency of species in the different types of forests.

** scored +, ++ or +++ as relevant for the species evaluated

- ***Human impact on habitat:*** Defined as both direct and indirect impact of human activities that would have an impact on the habitat, and hence on the future survival, of a species.
  Data analysis: Each species was assessed against the negative impacts listed in the table below, and a negative impact carried one, two or three pluses depending on its importance in aggravating the threat status. When a species was not affected by a particular type of impact it received no score.

Impact of humans on habitat of species	Impact value
Recorded decline in area of occupancy	+++
Mining	+
Agriculture/development	+++
Habitat shared with highly exploited species	+
Habitat invaded by invasive species	+
Habitat occurs in a highly populated area	+ to +++**
There is easy human access to habitat	+ to +++**
Habitat threatened due to pollution	+
Habitat subjected to natural disasters	+
Habitat affected by man made fires	+++

**scored +, ++ or +++ as relevant for the species evaluated

Finally, the sum of +points received for the above impacts were scored on a six-point scale of 0-5 as follows: ≥8+ (=5); 7+ to 6+ (=4); 5+ to 4+ (=3); 3+ to 2+ (=2); 1 + (=1); recorded as no human impact (=0)

- ***Recorded human impact on the species - exploitation:*** Defined as *recorded* impact of human use that has a bearing on the future survival of a species.
  Data analysis: Species for which there was recorded use were scored against the two sets of sub-criteria given below:
  Recorded effects on the species were scored as follows:
  1. Use of mature whole plant which takes a long period to mature (5)
  2. Use of whole plant which takes less than five years to mature (4)
  3. Use of plant parts involves damage to the plant (3)
  4. Use of plant parts causes reduced reproductive capacity, such as collection of fruits and seeds (2)
  5. Use of parts has very little effect on the plant (1)

  Recorded levels of exploitation of species were scored as follows:
  1. Populations drastically reduced over the last few decades (5)
  2. Populations subject to large scale exploitation (4)
  3. Populations little affected at present (through local use), but the commercial value of the species has been recognised (3)
  4. Populations presently used on a small scale (2)
  5. Populations little affected as yet (1)

Finally, the scores for both sets of sub-criteria were added, and scored on a six- point scale of 0-5 as follows: 10 points (5); 9 points (4); 8 - 7 points (3); 6 - 5 points (2); 4 - 3 points (1); 2 points (0).

- ***Endemism or global threat status:*** An endemic is defined as a species that is restricted in distribution to Sri Lanka. A species is deemed to be globally threatened if it is listed in the *1997 IUCN Red List of Threatened Plants* (Walter and Gillett 1998).

  Data analysis: an endemic species received a score of 5 and a non-endemic, indigenous, globally threatened species received a score of 3. Other species received a score of 0.

CATEGORIES OF THREAT

Species were assigned to two categories of threat: Highly Threatened and Threatened, using the cut-off points given below:

Category	**Highly Threatened**	**Threatened***
Average score	$\geq$4	3.9 - 3

* Species which received <3 should not be interpreted as being "not threatened", not needing any conservation action or freely available for use (see section on What the list does not imply in Part I of this document for further clarification). Further, it should be noted that the status of threat for species which were not evaluated during this work, or were deemed Data Deficient, are also unknown.

The List of Threatened Flora of Sri Lanka

Format used in the list:

Scientific name
Endemicity (ES)
Threat status given in the *1997 IUCN Red List of Threatened Plants* (GTP)
Threat status given in the 1993 Provisional List (PrL)
Threat status assigned in the present national list (NL)

Abbreviations used in the list:

E	-	Endangered
ES	-	Endemic species
GTP	-	Globally Threatened Plants
HT	-	Highly Threatened (status in present list)
HT*	-	Highly Threatened, most recent records between 1900 and 1950 (hence, possibly extinct or nearing extinction)
HT**	-	Highly Threatened, not recorded after 1900 (hence, possibly extinct or nearing extinction)
I	-	Indeterminate
NL	-	National list (present list)
PrL	-	Provisional List (of 1993)
R	-	Rare
T	-	Threatened (status in the 1993 Provisional List)
TR	-	Threatened (status in present list)
V	-	Vulnerable

LIST OF THREATENED FLORA OF SRI LANKA

Scientific Name	ES	GTP	PrL	NL
Family: Acanthaceae				
Andrographis macrobotrys Nees	-	-	T	HT
Barleria nitida Nees	-	-	T	HT
Gymnostachyum thwaitesii T. Anders.	ES	I	T	HT**
Strobilanthes caudata T. Anders.	ES	-	T	HT**
S. gardneriana (Nees) T. Anders.	ES	I	T	HT*
S. nigrescens T. Anders.	ES	I	T	HT**
5. *nockii* Trim.	ES	I	T	HT
S. punctata Nees	ES	I	T	HT
5. *rhytisperma* C.B Clarke	ES	I	T	HT
S. stenodon C. B. Clarke	ES	I	T	HT
5. *thwaitesii* T. Anders.	ES	I	T	HT**
S. zeylanica T. Anders.	ES	I	T	HT*
Family: Amaranthaceae				
Achyranthes bidentata Bl.	-	-	T	HT*
A. diandra Roxb.	ES	I	T	HT
Centrostachys aquatica (R. Br.) Wall. ex Moq.	-	-	T	HT**
Cyathula ceylanica Hook. f.	ES	I	T	HT**
Family: Anacardiaceae				
Semecarpus moonii Thw.	ES	I	T	HT
S. obovata Moon	ES	I	T	HT
5. *parvifolia* Thw.	ES	V	T	TR
S. pseudo-emarginata Kosterm.	ES	-	-	HT
Family: Annonaceae				
Alphonsea hortensis H. Huber	ES	I	T	HT**
A. zeylanica Hook. f. & Thoms.	ES	I	T	HT
Anaxagorea Iuzonensis A. Gray	-	-	T	HT**
Artabotrys hexapetalus (L.f.) Bhandari	-	-	T	TR
Goniothalamus thomsonii Thw.	ES	I	T	TR
Miliusa zeylanica Gard. ex Hook. f. & Thoms.	ES	I	T	TR
Orophea polycarpa A. DC.	-	-	T	HT**
Phoenicanthus coriacea (Thw.) H. Huber	ES	I	T	TR
Polyalthia moonii Thw.	ES	I	T	HT**
P. persicaefolia (Hook. f. & Thoms.) Thw.	ES	I	T	HT

Scientific Name	ES	GTP	PrL	NL
Uvaria cordata (Dunal) Alston	-	-	T	TR
Xylopia nigricans Hook. f. & Thorns.	ES	I	T	TR
Family: Apocynaceae				
Anodendron rhinosporum Thw.	ES	V	T	HT
Carissa inermis Vahl	-	-	-	TR
Cleghornia acuminata Wigtht	ES	-	-	TR
Rauvolfia serpentina (L.) Benth. ex Kurz	-	-	T	HT
Vallaris solanacea (Roth) Kuntze	-	-	T	TR
Wrightia flavido-rosea Trim.	ES	I	T	HT**
Family: Aponogetonaceae				
Aponogeton jacobsenii Bruggen	ES	-	-	HT
A. natans (L.) Engler & Krause	-	-	-	TR
A. rigidifolius Bruggen	ES	-	-	HT
Family: Apostasiaceae				
Apostasia wallichii R. Br.	-	-	T	HT
Family: Araceae				
Arisaema constrictum Barnes	ES	I	T	HT*
Cryptocoryne alba de Wit	ES	-	-	HT
C. beckettii Trimen	ES	-	-	HT
C. bogneri Rataj	ES	-	-	HT**
C. nevillii Trimen ex Hook. f.	ES	-	-	HT
C. parva de Wit	ES	-	-	HT
C. thwaitesii Schott	ES	I	T	HT
C. undulata Wendt	ES	-	-	HT
C. walked Schott	ES	-	T	HT
C. wendtii de Wit	ES	-	-	TR
C. x willisii Reitz	ES	-	-	HT
Lagenandra bogneri de Wit	ES	-	-	TR
L. jacobsenii de Wit	ES	-	-	HT
L koenigii (Schott) Thw.	ES	-	-	HT
L. lancifolia (Schott) Thw.	ES	-	-	HT
L praetermissa de Wit	ES	-	-	HT
L. thwaitesii Engler	ES	-	-	HT
Rhaphidophora decursiva (Roxb.) Schott	-	-	T	HT
R. pertusa (Roxb.) Schott	-	-	T	HT**

Scientific Name	ES	GTP	PrL	NL
Typhonium flagelliforme (Lodd.) Bl.	-	-	T	HT*
Family: Araliaceae				
Polyscias acuminata (Wight) Seem.	-	-	T	HT
Family: Asclepiadaceae				
Bidaria cuspidata (Thunb.) Huber	ES	I	T	HT
Brachystelma lankana Dassanayake & Jayasuriya	ES	I	T	HT
Caralluma adscendens (Roxb.) Haworth	-	-	T	HT
C. umbellata Haworth	-	-	T	TR
Ceropegia candelabrum L.	-	I	T	HT
C. elegans Wall.	-	I†	T	HT
C. parviflora Trim.	ES	I	T	HT**
C. taprobanica Huber	ES	R	T	HT
C. thwaitesii Hook.	-	-	T	HT**
Cosmostigma racemosum (Roxb.) Wight	-	-	T	HT**
Cynanchum alatum Wight & Arn. ex Wight	-	-	T	HT**
Dischidia nummularia R. Br.	-	-	T	HT**
Gymnema rotundatum Thw.	ES	I	T	HT**
Heterostemma tanjorense Wight & Arn. ex Wight	-	-	T	TR
Hoya ovalifolia Wight & Arn. ex Wight	-	-	T	TR
H. pauciflora Wight	-	-	T	HT
Marsdenia tenacissima (Roxb.) Moon	-	-	T	HT**
Oxystelma esculentum (L.f.) R. Br. ex Schult.	-	-	T	TR
Toxocarpus kleinii Wight & Arn. ex Wight	-	-	T	HT
Tylophora fasciculata Buch. - Ham. ex Wight	-	-	T	HT
T. multiflora (Wight & Arn. ex Wight) Alston	-	-	T	TR
T. pauciflora Wight & Arn. ex Wight	-	-	T	HT
T. zeylanica Decne.	ES	I	T	HT**
Family: Balanophoraceae				
Balanophora fungosa J.R. & G. Forst.	-	-	T	HT
Family: Balsaminaceae				
Impatiens acaulis Arn.	-	I	-	TR
I. appendiculata Arn.	ES	-	-	TR
I. arnottii Thw.	ES	-	-	TR

† *C. elegans* Wall. Var. *gardneri* (Thw.) Huber is considered as Indeterminate (I) in the 1997 IUCN Red List of Threatened Plants.

Scientific Name	ES	GTP	PrL	NL
I. ciliifolia Grey-Wilson	ES	-	-	TR
I. cornigera Arn.	ES	-	-	TR
I. cuspidata Wight & Arn.	-	-	-	TR
I. elongata Arn.	ES	-	-	HT
I. grandis Hcyne ex Wall.	-	-	-	TR
I. janthina Thw.	ES	I	T	HT
I. leptopoda Arn.	ES	-	-	TR
I. leucantha Thw.	ES	I	T	HT
I. linearis Arn.	ES	-	-	HT
I. macrophylla Gardner	ES	-	-	TR
I. oppositifolia L.	-	-	-	TR
I. repens Moon	ES	I	T	HT
I. subcordata Arn.	ES	I	T	HT*
I. taprobanica Hiern	ES	I	T	HT
I. thwaitesii Hook. f. ex Grey-Wilson	ES	-	-	TR
I. truncata Thw.	ES	-	-	TR
I. walkeri Hook.	ES	I	T	HT*
Family: Begoniaceae				
Begonia dipetala R. Grah.	-	-	T	TR
B. subpeltata Wight	-	R	T	HT
B. tenera Dry.	ES	-	T	HT
Family: Bombacaceae				
- *Adansonia digitata* L.	-	-	T	TR
Family: Boraginaceae				
Cordia subcordata Lam.	-	-	T	HT*
Heliotropium supinum L.	-	-	T	HT**
Rotula aquatica Lour,	-	-	T	HT
Family: Burmanniaceae				
Burmannia championii Thw.	-	-	T	HT*
Thismia gardneriana Hook. f. ex Thw.	ES	I	T	HT**
Family: Campanulaceae				
Campanula canescens Wall. ex DC.	-	-	T	HT**
C. fulgens Wall.	-	-	T	HT**

- *Introduced species, but evaluated due to historical reasons*

Scientific Name	ES	GTP	PrL	NL
Family: Capparidaceae				
Cadaba fruticosa (L.) Druce	-	-	T	TR
Capparis divaricata Lam.	-	-	T	TR
C. floribunda Wight	-	-	T	HT
C. mooni Wight	-	-	-	TR
C. tenera Dalz.	-	-	T	TR
Cleome chelidonii L.f	-	-	T	TR
Family: Caryophyllaceae				
Cerastium fontanum Baumg.	-	-	-	TR
Stellaria pauciflora Zoll. & Mor.	-	-	T	HT**
Family: Celastraceae				
Celastrus paniculatus Willd.	-	-	T	HT**
Euonymus thwaitesii Laws.	ES	I	T	HT
Glyptopetalum zeylanicum Thw.	-	-	T	TR
Kokoona zeylanica Thw.	ES	-	T	TR
Maytenus fruticosa (Thw.) Loes.	ES	I	T	HT
Family: Clusiaceae (Guttiferae)				
Calophyllum calaba L.	ES	V	-	TR
C. cordato-oblongum Thw.	ES	E	T	TR
C. cuneifolium Thw.	ES	I	T	HT
C. moonii Wight	ES	V	-	TR
C. thwaitesii Planch. & Triana	ES	R	-	TR
C. tomentosum Wight	ES	R	-	TR
C. trapezifolium Thw.	ES	-	T	HT
C. walkeri Wight	ES	-	-	TR
C. zeylanicum Kosterm.	ES	-	-	HT
Garcinia hermonii Kosterm.	ES	R	-	TR
G. terpnophylla (Thw.) Thw.	ES	I	-	TR
G. thwaitesii Pierre	ES	-	-	HT
G. zeylanica Roxb.	ES	I	-	HT
Mesua stylosa (Thw.) Kosterm.	ES	-	T	HT
Family: Combretaceae				
Lumnitzera littorea (Jack) Voigt	-	-	T	HT

Scientific Name	ES	GTP	PrL	NL
Family: Commelinaceae				
Cyanotis obtusa (Trim.) Trim.	ES	I	T	TR
Family: Compositae (Asteraceae)				
Anaphalis fruticosa Hook.f.	ES	I	T	HT**
A. pelliculata Trim.	ES	I	T	HT
A. thwaitesii C.B. Clarke	ES	I	T	HT**
Blepharispermum petiolare DC.	-	-	T	HT*
Blumea angustifolia Thw.	ES	I	T	HT**
B. aurita (L.f.) DC.	-	-	T	HT
B. barbata DC.	-	-	T	HT
B. crinita Arn.	ES	I	T	HT*
B. lanceolaria (Roxb.) Druce	-	-	T	HT*
Glossogyne bidens (Retz.) Alston	-	-	T	HT**
Gynura hispida Thw.	ES	I	T	HT
G. zeylanica Trim.	ES	I	T	HT
Notonia grandiflora Wall. ex DC.	-	-	T	TR
N. walkeri (Wight) C.B. Clarke	-	-	T	HT**
Senecio gardneri (Thw.) C.B. Clarke	ES	I	T	HT*
Sphaeranthus amaranthoides Burm.f.	-	-	T	TR
Vernonia anceps C.B. Clarke	ES	I	T	HT
V. pectiniformis DC.	-	-	T	TR
V. thwaitesii C.B. Clarke	ES	I	T	HT
Family: Connaraceae				
Ellipanthus unifoliatus (Thw.) Thw.	ES	-	T	HT
Family: Convolvulaceae				
Argyreia choisyana Wight ex Clarke	-	-	T	HT**
A. hancorniaefolia Gardn.	ES	E	T	HT
A. pomacea Choisy	-	-	T	TR
A. splendens (Roxb.) Sweet	-	-	T	HT**
Bonamia semidigyna (Roxb.) Hall. f.	-	-	T	HT**
Ipomoea coptica (L.) Roem. & Schultes	-	-	T	HT
I. jucunda Thw.	ES	I	T	HT
I. staphylina Roem. & Schult.	-	-	T	HT**
I.wightii (Wall.) Choisy	-	-	T	HT

Scientific Name	ES	GTP	PrL	NL
Family: Crassulaceae				
Kalanchoe pinnata (Lam.) Pers.	-	-	T	HT*
Family: Cucurbitaceae				
Kedrostis foetidissima (Jacq.) Cogn.	-	-	T	TR
Mukia leiosperma (Wight & Arn.) Wight	-	-	T	HT**
Family: Cyperaceae				
Baeothryon subcapitatum (Thw.) T. Koyama	-	-	T	HT**
Carex breviscapa Clarke	-	-	T	HT
C. taprobanensis T. Koyama	ES	I	T	HT
Cyperus articulatus L.	-	-	T	HT**
C. cephalotes Vahl	-	-	T	HT
Eleocharis confervoides (Poir.) T. Koyama	-	-	T	HT**
E. lankana T. Koyama	ES	I	T	HT
Fimbristylis monticola Hochst. ex Steud.	-	-	T	HT
F. zeyianica T. Koyama	ES	I	T	HT
Hypolytrum longirostre Thw.	ES	I	T	HT
Mapania immersa (Thw.) Benth. ex Clarke	ES	I	T	HT
M. zeyianica (Thw.) Benth. ex Clarke	-	-	T	HT
Mariscus compactus (Retz.) Boldingh	-	-	T	HT
Pycreus stramineus (Nees) Clarke	-	-	T	HT**
Rhynchospora gracillima Thw.	-	-	T	HT**
Scirpodendron ghaeri (Gaertn.) Merr.	-	-	T	HT**
Scleria piloxa Boeck.	ES	-	T	HT**
Tricostularia undulata (Thw.) Kern.	-	-	T	HT**
Family: Dilleniaceae				
Acrotrema dissectum Thw. ex Hook. f.	ES	I	T	HT
A. lyratum Thw. ex. Hook.f.	ES	I	T	HT
A. thwaitesii Hook.f. & Thorns. ex Hook. f.	ES	I	T	HT**
Family: Dioscoreaceae				
Dioscorea koyamae Jayasuriya	ES	-	-	HT
D. trimenii Prain & Burkill	ES	-	T	HT
Family: Dipterocarpaceae				
Balanocarpus brevipetiolaris (Thw.)Alston *(Hopea brevipetiolaris)*	ES	V	-	TR
B. kitulgallensis Kosterm.	ES	-	-	HT

Scientific Name	ES	GTP	PrL	NL
Dipterocarpus glandulosus Thw.	ES	E	-	TR
D. insignis Thw.	ES	E	-	TR
Doona congestiflora Thw. *(Shorea congestiflora)*	ES	R	-	TR
D. gardneri Thw. *(Shorea gardneri)*	ES	-	-	TR
D. macrophylla Thw. *(Shorea megistophylla)*	ES	R	-	TR
D. nervosa Thw. *(Shorea cordifolia)*	ES	R	-	TR
D. oblonga Thw. *(Shorea disticha)*	ES	R	T	TR
D. ovalifolia Thw. *(Shorea ovalifolia)*	ES	E	T	HT
D. trapezifolla Thw. *(Shorea trapezifolia)*	ES	R	-	TR
D. venulosa Thw. *(Shorea worthingtonii)*	ES	R	-	TR
D. zeylanicus Thw. *(Shorea zeylanica)*	ES	V	-	TR
Hopea cordifolia (Thw.) Trim.	ES	R	T	HT
H. discolor Thw.	ES	E	-	TR
H. modesta (A. DC.) Kosterm. *(H. jucunda sub.* sp. *modesta)*	ES	-	-	TR
Shorea dyeri Thw.	ES	E	-	TR
S. hulanidda Kosterm.	ES	-	-	HT
S. lissophylla Thw.	ES	E	-	TR
S. oblongifolia Thw.	ES	V	-	TR
S. pallescens Ashton	ES	E	-	TR
S. stipularis Thw.	ES	V	-	TR
Stemonoporus acuminatus (Thw.) Beddome	ES	V	-	TR
S. affinis Thw.	ES	E	T	HT
S. angustisepalum Kosterm.	ES	-	-	HT
S. bullatus Kosterm.	ES	-	T	HT
S. canaliculatus Thw.	ES	V	-	TR
S. cordifolius (Thw.) Alston	ES	-	-	TR
S. elegans (Thw.) Alston	ES	E	-	HT
S. gardneri Thw.	ES	-	-	HT
S. gilimalensis Kosterm.	ES	-	-	HT
S. gracilis Kosterm.	ES	-	-	HT
S. kanneliyensis Kosterm.	ES	-	-	HT
S. laevifolius Kosterm.	ES	-	-	HT
S. lanceolatus Thw.	ES	I	T	HT
S. lancifolius (Thw.) Ashton	ES	E	-	HT
S. latisepalum Kosterm.	ES	-	-	HT
S. marginalis Kosterm.	ES	-	-	HT
S. moonii Thw.	ES	E	T	HT
S. nitidus Thw.	ES	I	T	HT
S. oblongifolius Thw.	ES	I	T	HT

Scientific Name	ES	GTP	PrL	NL
S. petiolaris Thw.	ES	I	T	HT
S. reticulatus Thw.	ES	E	T	TR
S. revolutus Trim. ex Hook. f.	ES	-	-	TR
S. rigidus Thw.	ES	I	T	HT
S. scalarinervis Kosterm.	ES	-	-	HT
S. scaphifolius Kosterm.	ES	-	-	HT
S. wightii Thw.	ES	V	-	TR
Sunaptea scabriuscula(Thw.)Trim.(*Cotylelobium scabriusculum*)	ES	E	T	TR
Vatica affinis Thw.	ES	E	-	TR
V. lewisiana (Trim. ex Hook. f.) Livera *(Cotylelobium lewisianum)*	ES	I	-	HT
V. obscura Trim.	ES	I	T	HT
V. paludosa Kosterm.	ES	-	-	HT
Family: Ebenaceae				
Diospyros acuminata (Thw.) Kosterm.	ES	V	-	TR
D. acuta Thw.	ES	E	T	HT
D. albiflora Alston	ES	E	T	HT
D. atrata Alston	ES	I	T	HT
D. attenuata Thw.	ES	I	T	HT
D. chaetocarpa Kosterm.	ES	E	T	TR
D. crumenata Thw.	ES	I	-	HT
D. ebenoides Kosterm.	ES	V	T	HT
D. ebenum Koenig	-	-	-	TR
D. hirsuta L.f.	ES	V	-	TR
D. koenigii Kosterm.	ES	I	T	HT
D. melanoxylon Roxb.	-	-	-	TR
D. montana Roxb.	-	-	-	TR
D. moonii Thw.	ES	I	T	HT
D. nummulariifolia Kosterm.	ES	-	-	HT
D. oblongifolia (Thw.) Kosterm.	ES	-	-	TR
D. oppositifolia Thw.	ES	E	T	HT
D. pemadasai Jayasuriya	ES	-	-	HT
D. quaesita Thw.	ES	E	T	HT
D. rheophytica Kosterm.	ES	E	-	HT
D. thwaitesii Beddome	ES	V	-	TR
D. trichophylla Alston	ES	-	-	TR
D. walked (Wight) Guerke	ES	V	-	TR

Scientific Name	ES	GTP	PrL	NL
Family: Elaeocarpaceae				
Elaeocarpus montanus Thw.	ES	R	T	TR
E. zeylanicus (Arn.) Mast.	ES	I	T	HT
Family: Eriocaulaceae				
Eriocaulon collinum Hook. f.	-	-	T	TR
E. fluviatile Trim.	-	I	T	HT
E. longicuspic Hook. f.	-	I	T	HT
E. philippo-coburgi Szyszyl. ex Wawra	ES	-	T	HT
E. walked Hook.f.	ES	I	T	HT
Family: Euphorbiaceae				
Antidesma thwaitesianum Muell. Arg.	-	I	T	HT
Bridelia stipularis (L.) Bl.	-	-	T	HT
Chaetocarpus pubescens (Thw.) Hook.f.	ES	E	T	HT
Chrozophora plicata (Vahl) A. Juss.	-	-	t	HT**
Cleidion nitidum (Muell. Arg.) Thw. ex Kurz	-	-	T	HT
C. spiciflorum (Burm. f.) Merr.	-	-	T	TR
Cleistanthus collinus (Roxb.) Benth.	-	-	T	HT*
Croton moonii Thw.	ES	I	T	HT
Dalechampia indica Wight	-	-	T	HT**
Drypetes lanceolata (Thw.) Pax & Hoffm.	ES	I	T	HT
Euphorbia cristata Heyne	-	-	T	HT**
Glochidion nemorale Thw.	ES	I	T	TR
Phyllanthus cinereus Muell. Arg.	ES	I	T	HT
P. hakgalensis Thw.ex. Trim.	ES	I	T	HT**
P. heyneanus Muell. Arg.	-	-	T	HT
P. rotundifolius Klein ex Willd.	-	-	T	TR
P. zeylanicus Muell. Arg.	ES	I	T	HT
Putranjiva zeylanica (Thw.) Muell. Arg.	ES	I	T	HT
Sauropus assimilis Thw.	ES	I	T	HT
S. retroversus Wight	ES	I	T	HT**
Trigonostemon diplopetalus Thw.	ES	I	T	HT**
Family: Gentianaceae				
Crawfurdia championii (Gardn.) Trim.	ES	-	T	HT**
Exacum petiolare Griseb.	-	-	-	TR
E. sessile L.	-	-	T	HT*

Scientific Name	ES	GTP	PrL	NL
E. trinervium (L.) Druce	ES	-	-	TR
E. walkeri Arn.	ES	-	-	TR
Family: Geraniaceae				
Geranium nepalense Sweet	-	-	T	TR
Family: Gesneriaceae				
Aeschynanthus ceylanica Gardn.	ES	I	T	HT
C. angusta (Clarke) Theobald & Grupe	ES	-	-	HT
Chirita moonii Gardn.	ES	I	T	HT
C. walkeri Gardn ✝	ES	I	T	HT
C. zeylanica Hook.	ES	-	-	HT
Didymocarpus floccosus Thw.	ES	I	T	HT
D. zeylanicus R. Br.	ES	R	T	HT
Epithema carnosum (G. Don) Benth.	-	-	T	HT
Family: Goodeniaceae				
Scaevola plumieri (L.) Vahl	-	-	T	JIT
Family: Haloragidaceae				
Laurembergia zeylanica (Arn. ex C.B. Clarke) Schindl.	-	I	T	HT
Family: Hippocrateaceae				
Loeseneriella arnottiana (Wight) A.C. Smith	-	-	T	TR
L. macrantha (Korth.) A.C. Smith	-	-	T	TR
Salacia oblonga Wall. ex Wight & Arn.	-	-	-	TR
S. reticulata Wight	-	-	-	TR
Family: Hydrocharitaceae				
Nechamandra alternifolia (Roxb.) Planch. ex Thw.	-	-	T	TR
Family: Icacinaceae				
Pyrenacantha volubilis Hook.	-	-	T	TR

✝ *C. walkeri* Gardn. ssp. parviflora (Clarke) Theobald & Grupe considered as Indeterminate (I) in the 1997 IUCN Red List of Threatened Plants

Scientific Name	ES	GTP	PrL	NL
Family: Lamiaceae (Labiatae)				
Anisochilus paniculatus Benth.	-	-	T	HT
Coleus elongatus Trim.	ES	I	T	HT
C. inflatus Benth.	ES	-	-	HT
C. kanneliyensis Cramer & Balasubramaniam	ES	-	-	HT
Leucas longifolia Benth.	-	-	T	HT**
Plectranthus capillipes Benth.	ES	I	T	HT**
P. glabratus (Benth.) Alston	-	-	T	HT**
Scutellaria robusta Benth.	ES	I	T	HT*
Family: Lauraceae				
Actinodaphne albifrons Kosterm.	ES	V	T	TR
Cassytha capillaris Meiss.	-	-	T	HT**
Cinnamomum capparu-coronde Bl.	ES	E	T	TR
C. citriodorum Thw.	ES	I	T	HT
C. litseaefolium Thw.	ES	-	T	TR
Cryptocarya membranacea Thw.	ES	E	T	TR
Litsea ligustrina (Nees) Kostermans (L. undulata Hook. f.)	-	I	T	TR
L. nemoralis (Thw.) Trimen	ES	E	T	HT
Family: Leguminosae (Fabaceae)				
Acacia ferruginea DC.	-	-	T	HT
Adenanthera bicolor Moon	ES	E	T	TR
Albizia amara (Roxb.) Boivin	-	-	T	HT
Bauhinia scandens L.	-	-	T	HT**
Cassia italica (Mill.) Spreng.	-	-	T	HT**
C. senna L.	-	-	T	HT**
Caesalpinia crista L.	-	-	T	HT
C. digyna Rottl.	-	-	T	HT**
C. hymenocarpa (Prain) Hattink	-	-	T	TR
Crotalaria berteroana DC.	-	-	T	HT**
C. linifolia L.f.	-	-	T	HT**
C. montana Roth	-	-	T	HT**
C. mysorensis Roth	-	-	T	HT**
C. triquetra Dalz.	-	-	T	HT**
C. wightiana Graham ex Wight & Arn.	-	-	T	HT**
C. willdenowiana DC.	-	-	T	HT**
Crudia zeylanica (Thw.) Benth.	ES	E	T	HT**
Cxnometra iripa Kostel.	-	-	T	HT*

Scientific Name	ES	GTP	PrL	NL
Desmodium gangeticum (L.) DC.	-	-	T	HT
D. jucundum Thw.	ES	I	T	HT**
D. zonation Miq.	-	-	T	HT*
Dioclea javanica Benth.	-	-	T	HT**
Dunbaria ferruginea Wight & Arn.	-	-	T	HT
Eleiotis monophxllos (Burm.f.) DC.	-	-	T	HT**
Galactia striata (Jacq.) Urban	-	-	T	HT**
Indigofera constricta (Thw.) Trim.	-	R	T	HT**
I. glabra L.	-	-	T	TR
I. parviflora Heync ex Wight & Arn.	-	-	T	HT**
I. trifoliata L.	-	-	T	HT**
I. wightii Grah.cx Wight & Arn.	-	-	T	HT**
Mucuna gigantea (Willd.) DC.	-	-	T	HT**
M. monosperma (Roxb.) DC.	-	-	T	HT**
Pericopsis mooniana (Thw.) Thw.	-	-	T	HT
Rhynchosia acutissima Thw.	-	-	T	HT**
R. densiflora (Roth) DC.	-	-	T	HT*
R. nummularia (L.) DC.	-	-	T	HT**
R. suaveolens (L. f.) DC.	-	-	T	HT**
Sesbania sericea (Willd.) Link	-	-	T	HT**
Smithia conferta J.E. Smith	-	-	T	HT*
Sophora violacea Thw.	-	I	T	HT**
S. zeylanica Trim.	ES	I	T	HT*
Strongylodon siderospermus Cordcmoy	-	-	T	HT**
Tephrosia senticosa (L.) Pers.	-	-	T	TR
T. spinosa (L.f.) Pers.	-	-	T	HT**
Family: Lemnaceae				
Lemna gibba L.	-	-	T	HT**
Family: Lentibulariaceae				
Utricularia scandens Benj.	-	-	T	TR
Family: Liliaceae				
Chlorophytum heyneanum Wall.	-	-	T	TR
Dipcadi montanum (Dalz.) Bak.	-	-	T	TR
Urginea rupicola (Trim.) Trim. ex Hook. f.	-	-	T	TR

Scientific Name	ES	GTP	PrL	NL
Family: Loranthaceae				
Barathranthus mabaeoides (Trim.) Danser	ES	-	T	HT
B. nodiflorus (Thw.) Tieghem	ES	-	-	HT
Dendrophthoe ligulata (Thw.) Tieghem	ES	-	-	HT
D. lonchiphyllus (Thw.) Danser	ES	-	T	HT
D. suborbicularis (Thw.) Danser	ES	-	-	TR
Helixanthera ensifolia (Thw.) Danser	ES	-	T	HT
H. hookeriana (Wight & Arn.) Danser	-	-	-	TR
Macrosolen albicaulis Wiens	ES	-	-	HT
M. barlowii Wiens	ES	-	T	HT
Scurrula cordifolia (Wall.) G. Don	-	-	-	TR
Taxillus sclerophyllus (Thw.) Danser	ES	-	-	HT
Tolypanthus gardneri (Thw.) Tiegh.	ES	-	T	HT
Family: Malvaceae				
Abutilon pannosum (Forst.f.) Schldl.	-	-	T	TR
Dicellostyles axilliaris (Thw.) Benth.	ES	E	T	HT**
Julostylis angustifolia (Arn.) Thw.	ES	E	T	HT
Pavonia procumbens (Wight & Arn.) Walp.	-	-	T	TR
Thespesia lampas (Cav.) Dalz. & Gibson	-	-	T	HT
Family: Melastomataceae				
Medinilla cuneata (Thw.) Bremer & Lundin	ES	-	T	HT
M. maculata Gardn.	ES	I	T	HT
Memecylon ellipticum Thw.	ES	E	T	TR
M. gracillimum Alston	ES	I	T	HT
M. grande Retz.	ES	E	T	TR
M. leucanthemum Thw.	ES	I	T	HT
M. macrocarpum Thw.	ES	I	T	HT
M. orbiculare Thw.	ES	I	T	HT
M. ovoideum Thw.	ES	I	T	TR
M. phyllanthifolium Thw. ex Trimen	ES	I	T	HT
M. revolutum Thw.	ES	I	T	HT
M. rotundatum (Thw.) Cogn.	ES	I	T	HT
Sonerila cordifolia Cogn.	ES	I	T	HT**
S. firma (Thw. ex Clarke) Lundin	ES	I	T	HT**
S. gardneri Thw.	ES	I	T	HT**
S. lanceolata Thw.	ES	I	T	HT
S. pilosula Thw.	ES	I	T	HT

Scientific Name	ES	GTP	PrL	NL
5. *robusta* Arn.	ES	I	T	HT
S. tomentella Thw.	ES	I	T	HT**
S. wightiana Arn.	ES	I	T	HT**
Family: Menispermaceae				
Coscinium fenestratum (Gaertn.) Colebr.	-	R	T	TR
Family: Menyanthaceae				
Nymphoides aurantiaca (Dalz.) Kuntze	-	-	T	HT
Family: Moraceae				
Broussonetia zeylanica (Thw.) Corner	ES	I	T	HT*
Dorstenia indica Wight	-	-	T	TR
Ficus costata Ait.	-	I	T	HT
F. trimenii King	-	-	T	HT
Madura cochinchinensis (Lour.) Corner	-	-	T	HT**
Family: Myrtaceae				
Eugenia amoena Thw.	ES	E	T	HT
E. cotinifolia Jacq.✟	-	I,E	T	HT
E. fulva Thw.	ES	I	T	HT
E. glabra Alston	ES	I	T	HT
E. mabaeoides Wight	ES	I	T	HT
E. rivulorum Thw.	ES	I	T	TR
E. rotundata Trim.	ES	R	-	TR
E. rufo-fulva Thw.	ES	I	T	HT
E. terpnophylla Thw.	ES	E	T	TR
Syzygium assimile Thw.	-	R	-	HT
S. cordifolium Walp.	ES	V	-	TR
5. *cylindricum* (Wight) Alston	ES	V	-	TR
S. fergusoni Gamble	-	-	-	TR
S. firmum Thw.	ES	R	-	TR
S. gardneri Thw.	-	-	-	TR
S. hemisphericum (Walp.) Alston	-	-	-	TR
S. lanceolatum (Lam.) Wight & Arn.	-	-	-	HT*

✟ ssp. *codyensis (Munro ex Wight)* Ashton and ssp. phyllyraeoides Ashton are considered as Indeterminated (I) and Endangered (E) respectively, in the 1997 IUCN Red List of Threatened Plants

Scientific Name	ES	GTP	PrL	NL
S. lewisii Alston	ES	I	T	HT
S. micranthum Thw.	ES	R	-	TR
S. oliganthum Thw.	ES	-	-	TR
S. operculatum (Roxb.) Nicdz.	-	-	-	HT
S. revolutum Walp.	-	R	-	TR
S. sclerophyllum Thw.	ES	-	-	HT
S. spatluilatum Thw.	ES	E	-	TR
S. turbinatum Alston	ES	-	-	HT
S. umbrosum Thw.	ES	-	-	TR
Family: Oleaceae				
Jasminum bignoniaceum Wall. ex G. Don subsp. *zeylanicum* P.S. Green	-	-	T	TR
Olea paniculata R. Br.	-	-	T	HT
Family: Orchidaceae				
Acanthephippium bicolor Lindl.	-	-	-	TR
Adrorhizon purpurascens Hook. f.	ES	-	-	TR
Aerangis hologlottis (Schltr.) Schltr.	ES	-	-	HT
Aerides ringens (Lindl.) C.E.C. Fischer	-	-	-	TR
Agrostophyllum zeylanicum Hook. f.	ES	I	T	TR
Anoectochilus setaceus Blume	-	-	-	TR
Aphyllorchis montana Reichb. f.	-	-	-	TR
Anmdina minor Lindl.	ES	-	-	HT
Bulbophyllum crassifolium Thw. ex Trimen	ES	R	T	HT
B. macraei (Lindl.) Reichb. f.	ES	E	-	TR
B. maskeliyense Livera	ES	R	-	HT
B. petiolare Thw.	ES	-	-	TR
B. purpureum Thw.	ES	I	T	HT
B. tricarinatum Petch	ES	I	T	HT
B. trimeni (Hook. f.) J.J. Sm.	ES	-	-	TR
B. wightii Reichb. f.	ES	-	-	TR
Calanthe purpurea Lindl.	ES	-	-	TR
Cheirostylis flabellata Wight	-	-	-	TR
Chiloschista pusilla (Retz.) Schlechter	-	-	-	TR
Chrysoglossum maculatum (Thw.) Hook. f.	-	-	-	TR
Coelogyne breviscapa Lindl.	ES	-	-	TR
C. zeylanica Hook. f.	ES	I	T	HT
Corymborkis veratrifolia (Reinwardt) Blume	-	-	T	HT**
Cottonia peduncularis (Lindl.) Thw.	-	-	-	TR

Scientific Name	ES	GTP	PrL	NL
Crxptostylis arachnites Blume	-	-	-	TR
Cymbidium ensifolium var. haematodes (Lindl.) Trimen	-	-	-	TR
Dendrobium bambusaefolium Par. et Reichb. f.	-	-	-	HT
D. diodon Reichb. f.	ES	-	-	TR
D. heterocarpum Wall. ex Lindl.	-	-	-	TR
D. maccarthiae Thw.	ES	I	T	HT
D. panduratum Lindl.	ES	-	-	TR
Diplocentrum recurvum Lindl.	-	-	T	HT**
Disperis zeylanica Trimen	-	-	-	TR
Ephemerantha macraei (Lindl.) P.F. Hunt and Summerhayes (Flickingeri macraei)	-	-	-	TR
Epipogium roseurn (D.Don) Lindl.	-	-	-	TR
Eria articulata Lindl.	ES	R	-	HT
E. lindleyi Thw.	ES	R	-	TR
E. thwaitesii Trimen	ES	R	-	TR
E. tricolor Thw.	ES	-	T	HT
Eulophia graminea Lindl.	-	-	-	TR
E. nuda Lindl.	-	-	-	TR
E. sanguinea (Lindl.) Hook. f.	-	-	-	TR
Galeola javanica (Blume) Benth. & Hook. f.	-	-	T	H/I
Gastrochilus acaulis (Lindl.) Kuntze.	ES	-	-	TR
Gastrodia zeylanica Schlechter	ES	I	T	HT
Geodorum densiflorum (Lam.) Schlechter	-	-	-	TR
Goodyera fumata Thw.	-	-	T	HT**
G. procera (Ker - Gawl.) Hook.	-	-	-	TR
Habenaria acuminata (Thw.) Trimen	ES	-	-	TR
H. barbata Wight	-	-	-	TR
H. crinifera Lindley	-	-	-	TR
H. dichopetala Thw.	ES	-	-	TR
H. dolichostachxa Thw.	ES	-	-	TR
H. macrostachya Lindl.	-	-	-	TR
H. pterocarpa Thw.	ES	-	-	HT
H. rhynchocarpa (Thw.) Trimen	ES	-	-	HT
H. viridiflora (Sw.) Lindl.	-	-	-	TR
Hetaeria gardneri (Thw.) Trimen	ES	-	-	TR
Ipsea speciosa Lindl.	ES	E	-	HT
Kingidium deliciosum (Reichb. f.) Sweet	-	-	-	TR
Liparis atropurpurea Lindl.	-	-	-	TR
L barbata Lindl.	ES	I	T	HT

Scientific Name	ES	GTP	PrL	NL
L. brachyglottis Reichb. f. ex Trimen	ES	I	T	HT
L. caespitosa (Thouars) Lindl.	ES	-	-	TR
L. elliptica Wight	-	-	-	HT
Luisia tenuifolia (L.) Blume	-	-	-	TR
Malaxis densiflora (A. Rich.) Kuntze	-	-	T	TR
M. lancifolia (Thw.) Kuntze	ES	I	T	HT
M. latifolia Smith	-	-	-	TR
Nervilia juliana (Roxb.) Schlechter	-	-	-	TR
Oberonia claviloba Jayaweera	ES	I	T	HT
O. dolabrata Jayaweera	ES	I	T	HT
O. forcipata Lindl.	ES	I	-	HT
O. fornicata Jayaweera	ES	I	T	HT
O. longibracteata Lindl.	-	-	-	TR
O. quadrilatera Jayaweera	ES	I	T	HT
O. recurva Lindl.	-	-	T	TR
O. scyllae Lindl.	ES	I	T	HT
O. tennis Lindl.	ES	-	-	HT
O. thwaitesii Hook. f.	ES	-	-	TR
O. truncata Lindl.	ES	-	-	HT
O. wallie-silvae Jayaweera	ES	I	T	HT
O. weragamaensis Jayaweera	ES	I	T	HT
O. zeylanica Hook. f.	-	-	-	TR
Peristylus brevilobus Thw.	ES	-	-	TR
P. cubitalis (L.) Kraenzl.	-	-	-	TR.
P. gardneri (Hook.f.) Kraenzl.	ES	-	-	HT
P. trimenii (Hook. f.) Abeywick.	ES	-	-	HT
Phaius luridus Thw.	ES	-	T	TR
P. tancarvilleae (Banks ex L'Her.) Blume	-	-	-	TR
Phreatia elegans Lindl.	-	-	T	HT
Podachilus falcatus Lindl.	ES	-	-	TR
P. saxatilis Lindl.	ES	-	-	TR
Pomatocalpa decipiens (Lindl.) J.J. Smith	ES	-	-	HT
Pteroceras viridiflorum (Thw.) Holttum	-	-	T	HT
Rhynchostylis retusa Blume	-	-	T	TR
Robiquetia brevifolia (Lindl.) Garay	ES	-	-	TR
R. gracilis (Lindl.) Garay	-	-	T	HT
Schoenorchis tortifolia (Jayaweera) Garay	ES	-	-	HT
Sirhookera latifolia (Wight) Kuntze	-	-	T	HT**
Taeniophyllum alwisii Lindl.	ES	-	-	HT

Scientific Name	ES	GTP	PrL	NL
T. gilimalense Jayaweera	ES	I	T	HT
Tainia bicornis Reichb. f.	-	-	-	TR
Thrixspermum pugionifolium (Hook. f.) Schlechter	ES	-	-	TR
Trichoglottis tenera (Lindl.) Reichb. f.	-	-	-	TR
Tropidia bambusifolia (Thw.) Trimen	ES	-	-	HT
T. thwaitesii Hook. f.	ES	-	-	TR
Vanda spathulata (L.) Spreng.	-	-	-	TR
V. tessellata (Roxb.) Lodd. ex G. Don	-	-	-	TR
V. thwaitesii Hook. f.	ES	E	T	HT**
Vanilla moonii Thw.	ES	-	-	HT
V. walkerae Wight	-	I	-	TR
Zeuxine flava (Wall.) Trimen	-	-	-	TR
Z. longilabris (Lindl.) Trimen	-	-	-	HT
Z. regia (Lindl.) Trimen	ES	-	-	TR
Z. strateumatica (L.) Schlecht.	-	-	-	HT**
Family: Orobanchaceae				
Aeginetia pedunculata Wall.	-	-	T	HT**
Legocia aurantiaca (Wight) Livera	-	-	T	HT*
Christisonia thwaitesii Trim.	ES	-	T	HT**
Family: Palmae (Arecaceae)				
Areca concinna Thw.	ES	E	T	HT
Calamus delicatulus Thw.	ES	E	-	HT
C. digitatus Becc.	ES	V	-	HT
C. ovoideus Thw. ex Trim.	ES	E	-	HT
C. pachystemonus Thw.	ES	E	-	HT
C. radiatus Thw.	ES	E	-	HT
C. rivalis Thw. ex Trim.	ES	V	-	TR
C. zeylanicus Becc.	ES	E	-	TR
Nypa fruticans Wurmb.	-	-	T	TR
Family: Podostemaceae				
Farmeria metzgerioides (Trim.) Willis ex Hook. f.	ES	-	-	TR
Polypleurum stylosum (Wight) J. B. Hall	-	-	T	TR
P. elongatum (Gardner) J. B. Hall	ES	-	-	HT
Zeylanidium lichenoides (Kurz) Engler	-	-	-	HT**
Z. *olivaceum* (Gardner) Engler	-	-	-	HT
Z. subulatum (Gardner) C. Cusset	-	-	-	TR

Scientific Name	ES	GTP	PrL	NL
Family: Polygalaceae				
Polygala leptalea DC.	-	-	T	HT**
Family: Portulacaceae				
Portulaca wightiana Wall. ex Wight & Arn.	-	-	T	TR
Family: Proteaceae				
Hellcia ceylanica Gardn.	ES	E	T	HT
Family: Rhizophoraceae				
Ceriops decandra (Griff.) Ding Hou	-	-	T	BT
Family: Rosaceae				
Alchemilla indica Gardn.✝.	-	-	T	HT
Sanguisorba indicum (Gardn.) Tirvengadum	ES	I	T	HT**
Family: Roxburghiaceae				
Stemona minor (Thw.) Hook. f.	-	-	T	HT
Family: Rubiaceae				
Byrsophyllum ellipticum (Thw.) Hook. f.	ES	V	T	TR
Canthium macrocarpum Thw.	ES	I	T	HT**
Ceriscoides turgida (Roxb.) Tirveng.	-	-	T	HT
Dichilanthe zeylanica Thw.	ES	V	T	HT
Diplospora erythrospora (Thw.) Hook. f.	ES	V	T	TR
Hedyotis evania Thw.	ES	I	T	HT*
H. gardneri Thw.	ES	I	T	HT
H. inamoena Thw.	ES	I	T	HT
H. quinquinervia Thw.	ES	I	T	HT
H. rhinophylla Thw. ex Trim.	ES	I	T	HT
H. srilankensis Deb & Dutta	ES	I	T	HT**
Lasianthus rhizophyllus (Thw.) Thw.	ES	I	T	HT
L. thwaitesii Hook.f.	ES	I	T	HT**
Nargedia macrocarpa (Thw.) Bedd.	ES	R	T	TR
Neurocalyx gardneri Thw.	ES	I	T	HT**

✝ *Alchemilla indica* Gardn. var. sibthorpioides Hook.f. is considered as Indeterminate (1) in the 1997 IUCN Red List of Threatened Plants.

Scientific Name	ES	GTP	PrL	NL
Ophiorrhiza pallida Thw.	ES	I	T	HT**
Psychotria glandulifera Thw. ex. Hook.f.	ES	I	T	HT
P. longipetiolata Thw.	ES	I	T	HT
P. plurivenia Thw.	ES	I	T	HT
P. stenophylla (Thw.) Hook.f.	ES	I	T	TR
Saprosma glomeratum (Gardner) Bedd.	-	-	T	HT
S. scabridum (Thw.) Bedd.	ES	I	T	HT
Scyphiphora hydrophyllacea Gaertn.f	-	-	T	HT
Scyphostachys pedunculatus Thw.	ES	E	T	HT
Family: Rutaceae				
Atalantia racemosa Wight ex Hook.	-	-	T	TR
Glycosmis cyanocarpa (Bl.) Spreng. Var. simplicifolia Kurz	-	-	T	TR
Naringi crenulata (Roxb.) Nicolson	-	-	T	HT
Zanthoxylum caudatum Alston	ES	I	T	HT
Family: Sapindaceae				
Cardiospermum canescens Wall.	-	-	T	TR
Dimocarpus gardneri (Thw.) Leenh.	ES	-	T	HT
Lepisanthes simplocifolia (Thw.) Leenh.	ES	I	T	TR
Family: Sapotaceae				
Madhuca clavata Jayasuriya	ES	-	T	HT
M. moonii (Thw.) H.J. Lam	ES	E	T	TR
Palaquium canaliculatum (Thw.) Engl.	ES	V	T	TR
P. thwaitesii Trim.	ES	R	T	TR
Family: Scrophulariaceae				
Adenosma subrepens (Thw.) Benth. ex Hook.f.	ES	I	T	HT**
Linderina viscosa (Hornem.) Boldingh.	-	-	T	HT**
Verbascum chinense (L.) Santapau	-	-	T	HT**
Family: Surianaceae				
Suriana maritima L.	-	-	T	HT**
Family: Sonneratiaceae				
Sonneratia apetala Buch. - Ham.	-	-	T	HT

Scientific Name	ES	GTP	PrL	NL
Family: Sterculiaceae				
Eriolaena hookeriana Wight &Arn.	-	-	-	HT
Pentapetes phoenicea L.	-	-	T	TR
Pterygota thwaitesii (Mast.) Alston	ES	I	T	TR
Sterculia zeylanica Kosterm.	ES	I	T	TR
Family: Stylidiaceae				
Stylidium uliginosum Sw. ex Willd.	-	-	T	HT*
Family: Symplocaceae				
Symplocos diversifolia Brand	ES	E	T	HT
S. elegans Thw.	ES	R	T	HT
S. kurgensis Clarke	-	-	T	TR
Family: Symphoremaceae				
Symphorema involucratum Roxb.	-	-	T	HT**
Family: Taccaceae				
Tacca leontopetaloides (L.) Kuntze	-	-	T	HT
Family: Theaceae				
Gordonia speciosa (Gardn.) Choisy	ES	E	T	TR
Family: Thymelaeaceae				
Phaleria capitata Jack	-	-	T	HT**
Family: Tiliaceae				
Corchorus trilocularis L.	-	-	T	HT**
Triumfetta glabra Rottl.	ES	I	T	HT
Family: Triuridaceae				
Hyalisma janthina Champ.	-	-	T	HT**
Sciaphila erubescens (Champ.) Miers	ES	I	T	HT**
S. inornata Petch ex Alston	ES	I	T	HT**
S. secundiflora Trim. ex Benth.	ES	I	T	HT**
Family: Umbelliferae (Apiaceae)				
Heracleum ceylanicum Gardner ex Clarke	ES	-	-	TR
Peucedanum ceylanicum Gardn.	ES	I	T	HT**

Scientific Name	ES	GTP	PrL	NL
Sanicula elata Ham. ex D. Don	-	-	T	HT**
Family: Urticaceae				
Elastostema acuminatum (Poir.) Brongn.	-	-	T	HT**
E. walkerae Hook. f.	ES	I	T	HT**
Lecanthus peduncularis (Royle) Wedd.	-	-	T	HT**
Family: Vahliaceae				
Vahlia dichotoma (Murr.) Kuntze.	-	-	T	HT
Family: Verbenaceae				
Premna divaricata Wall.	-	-	T	HT
P. purpurascens Thw.	ES	I	T	HT
P. thwaitesii Clarke	ES	I	T	HT
Priva cordifolia (L.f.) Druce	-	-	T	HT
Svensonia hyderobadensis (Walp.) Moldenke	-	-	T	HT**
Family: Violaceae				
Hybanthus ramosissimus (Thw.) Melch.	ES	I	T	HT
Family: Viscaceae				
Ginalloa spathulifolia (Thw.) Oliv.	ES	I	T	HT
Korthalsella japonica (Thunb.) Engl.	-	-	T	HT
Notothixos floccosus (Thw.) Oliver	ES	I	T	HT
Viscum ramosissimum Roxb. ex DC.	-	-	T	TR
V. monoicum Roxb. ex DC.	-	-	-	TR
Family: Zingiberaceae				
Alpinia fax Burtt & Smith	ES	I	T	HT
A. rufescens (Thw.) Schum.	ES	I	T	HT**
Amotnum acuminatum Thw.	ES	I	T	HT**
A. benthamianum Trim.	ES	I	T	HT**
A. graminifolium Thw.	ES	I	T	HT
A. hypoleucum Thw.	-	I	T	HT**
A. trichostachyum Alston	ES	I	T	HT
Curcuma albiflora Thw.	ES	I	T	HT

SPECIES OF FLORA THAT WERE EVALUATED AND FOUND TO BE DATA DEFICIENT

Scientific Name	ES	GTP	PrL	NL
Family: Acanthaceae				
Hygrophila helodes Heine	-	-	T	DD
Family: Araceae				
Lagenandra erosa de Wit	ES	-	-	DD
Family: Boraginaceae				
Tournefortia walkerae Clarke	ES	-	-	DD
Family: Compositae (Asteraceae)				
Adenostemma angustifolium Arn.	-	-	T	DD
Family: Ebenaceae				
Diospyros opaca Clarke	ES	I	T	DD
Family: Euphorbiaceae				
Mallotus distorts Muell. Arg.	-	-	T	DD
Family: Haloragidaceae				
Laurembergia indica (Thw.) Schindl.	ES	I	T	DD
Family: Lamiaceae (Labiatae)				
Leucas angularis Benth.	-	-	-	DD
Plectranthus subincisus Benth.	-	-	T	DD
Family: Leguminosae (Fabaceae)				
Alysicarpus longifolius (Rottl. ex Spreng.) Wight & Arn.	-	-	T	DD
Caesalpinia major (Medik.) Dandy & Exell	-	-	T	DD
Eriosema chinense Vogel	-	-	T	DD
Family: Orchidaceae				
Hetaeria elongata Lindl.	-	-	-	DD
Peristylus plantagineus (Lindl.) Lindl.	-	-	T	DD

Family: Piperaceae				
Peperomia wightiana Miq. (Pcpcromia species 6)	ES	-	T	DD
Family: Rosaceae				
Rubus glomeratus Blume	-	-	T	DD
Family: Rubiaceae				
Hedyotis cyanescens Thw.	ES	-	T	DD
Oldenlandia trinervia Retz.	-	-	T	DD
Psychotria moonii (Thw.) Hook.f.	ES	I	T	DD
Family: Tiliaceae				
Grewia asiatica L.	-	-	T	DD
G. hirsuta Vahl	-	-	T	DD

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APPENDIX 1

Summary of New IUCN Categories and Criteria

Use any of the A-E criteria	Critically Endangered	Endangered	Vulnerable
A. Declining Population			
Population decline rate at least	80% in 10 years or 3 generations	50% in 10 years or 3 generations	20% in 10 years or 3 generations
Using either			
1. Population reduction observed, estimated, inferred, or suspected in the past or			
2. populalion decline projected or suspected in the future based on:			
a. direct observation			
b- an index of abundance appropriate for the taxon			
c. a decline in area of occupancy, extent of occurrence and/or quality of habitat			
d. actual or potential levels of exploitation			
e. the effects of introduced taxa, hybridization, pathogens, pollutants, competitors, or parasites			
B. Small Distribution and Decline or Fluctuation			
Either extent of occurrence	<100 km^2	<5,000 km^2	<20,000 km^2
or area of occupancy	<10 km^2	<500 km^2	<2,000 km^2
and 2 of the following 3.			
1. either severely fragmented: (isolated sub-populations with a reduced probability of recolonization, if once extinct) or known to exist at a number of locations	**= 1**	<5	< 10
2. continuing decline in any of the following:			
a. extent of occurrence			
b. area of occupancy	any rate	any rate	any rate
c. area extent and/or quality of habitat			
d. number of locations or sub-populations			
e. number of mature individuals			
1. fluctuating in any of the following:			
a. extent of occurrence			
b. area of occupancy			
c. number of locations or sub-populations	> 1 order/mag.	> 1 order/mag.	> 1 order/mag.
d. number of mature individuals			
C. Small Population Size and Decline			
Number of mature individuals	<250	<2,500	<10,000
and 1 of the following 2:			
1. rapid decline rate	25% in 3 years or 1 generation	20% in 5 years or 2 generations	10% in 10 years or 3 generations
2. continuing decline and either	any rate	any rate	any rate
a. fragmented or	all sub-pops ≤ 50	all sub-pops ≤ 250	all sub-pops ≤ 1,000
b- all individuals in a single sub-population			
D. Very Small or Restricted			
Either 1. Number of mature individuals	<50	< 250	< 1,000
or 2. Population is susceptible	(not applicable)	(not applicable)	area of occupancy <100 km^2 or number of locations < 5
E. Quantitative Analysis			
Indicating the probability of extinction in the wild to be at least	50% in 10 years or 3 generations	20% in 20 years or 5 generations	10% in 100 years

APPENDIX 2

IUCN THREATENED SPECIES CATEGORIES

EXTINCT (Ex)

Species not definitely located in the wild during the pasl 50 years (criterion as used by the Convention on International Trade in Endangered Species of Wild Fauna and Flora).

N.B. On a few occasions, the category Ex? has been assigned: this denotes that it is virtually certain that the taxon has recently become extinct.

ENDANGERED (E)

Taxa in danger of extinction and whose survival is unlikely if the causal factors continue operating.

Included are taxa whose numbers have been reduced to a critical level or whose habitats have been so drastically reduced that they are deemed to be in immediate danger of extinction. Also included are taxa that may be extinct but have definitely been seen in the wild in the past 50 years.

VULNERABLE (V)

Taxa believed likely to move into the 'Endangered' category in the near future if the causal factors continue operating.

Included are taxa of which most or all the populations are decreasing because of over-exploitation, extensive destruction of habitat or other environmental disturbance; taxa with populations that have been seriously depleted and whose ultimate security has not yet been assured; and taxa with populations that are still abundant but are under threat from severe adverse factors throughout their range.

N. B. In practice, 'Endangered' and "Vulnerable' categories may include, temporarily, taxa whose populations are beginning to recover as a result of remedial action, but whose recovery is insufficient to justify their transfer to another category.

RARE (R)

Taxa with small world populations that are not at present "Endangered' or "Vulnerable', but are at risk.

These taxa are usually localized within restricted geographical areas or habitats or are thinly scattered over a more extensive range.

INDETERMINATE (I)

Taxa *known* to be "Endangered', "Vulnerable' or 'Rare' but where there is not enough information to say which of the three categories is appropriate.

INSUFFICIENTLY KNOWN (K)

Taxa that are *suspected* but not definitely known to belong to any of the above categories, because of lack of information.

THREATENED (T)

Threatened is a general term to denote species which are "Endangered", 'Vulnerable'. 'Rare','Indeterminate', or 'Insufficiently Known' and should not be confused with the use of the same term by the U. S. Office of Endangered Species. In previous volumes it has been used to identify taxa comprised of several sub-taxa which have differing status categories.

COMMERCIALLY THREATENED (CT)

Taxa not currently threatened with extinction, but most or all of whose populations are threatened as a sustainable commercial resource, or will become so, unless their exploitation is regulated.

This category applies only to taxa whose populations are assumed to be relatively large.

N. B. In practice, this category has only been used for marine species of commercial importance that are being overfished in several parts of their ranges.

FAUNAL SURVEY

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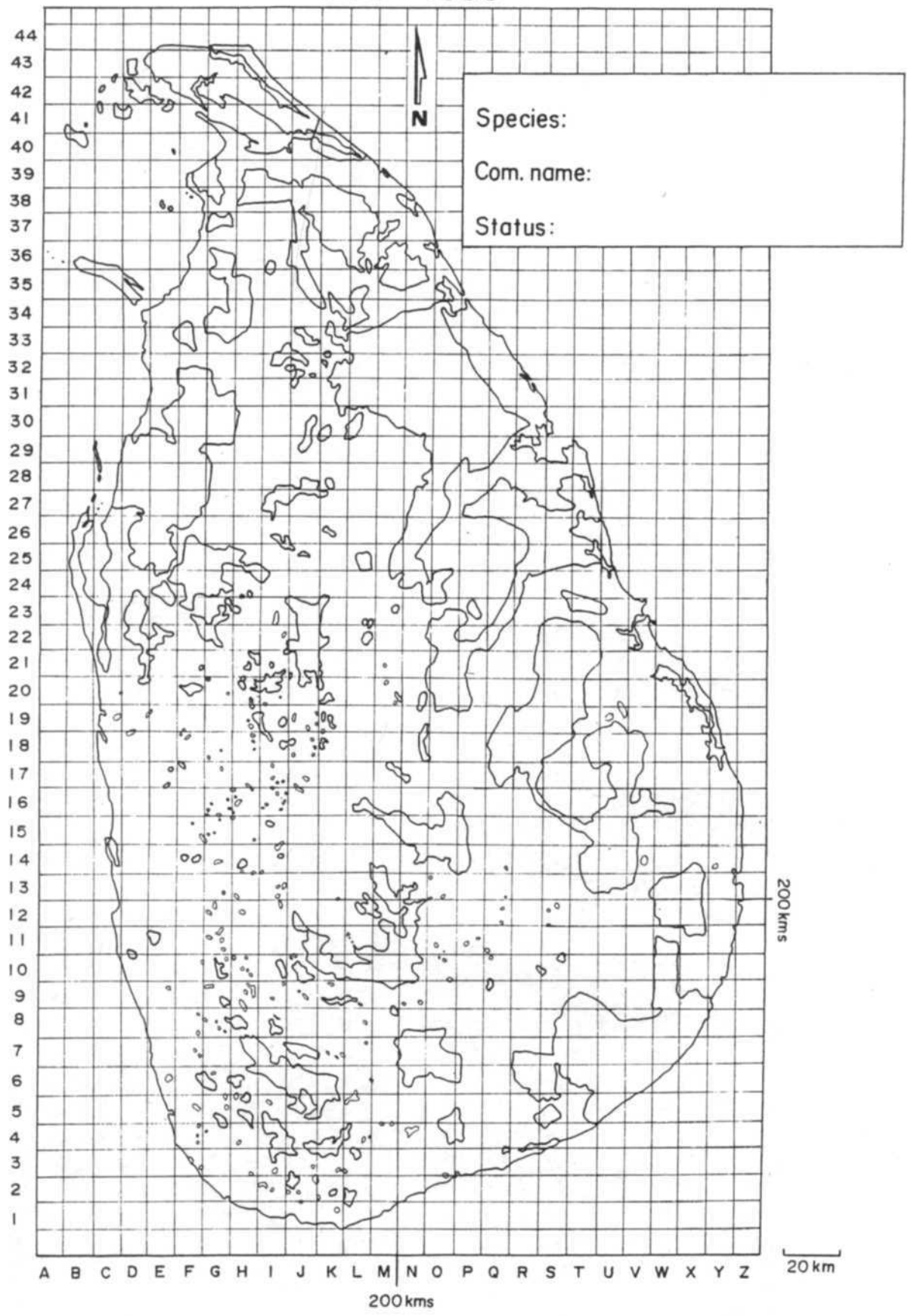

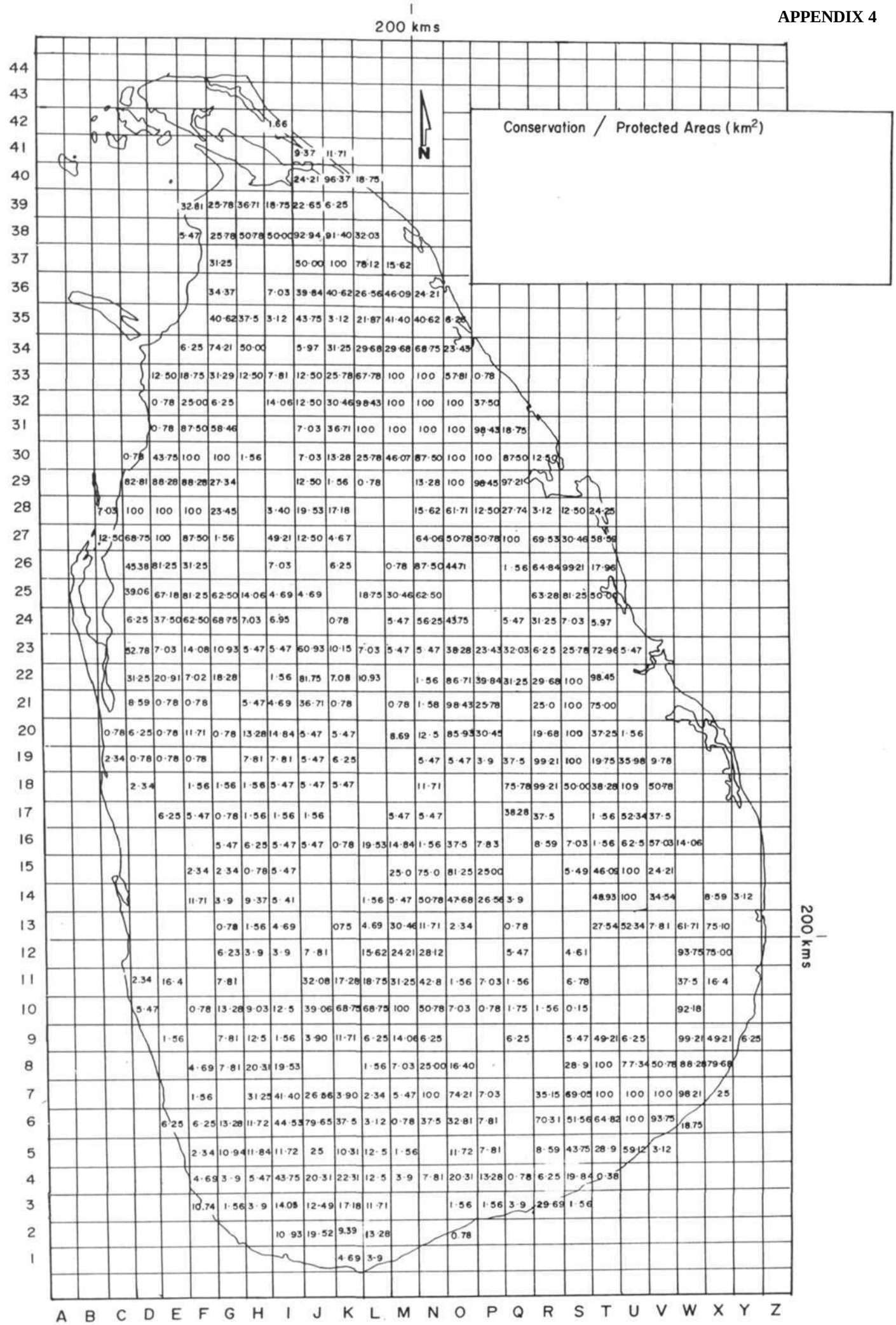
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