

## **Appendix 1**

### **Species list of Shiretoko Peninsula** **and its coastal area**

# The Vascular Plants of Shiretoko Peninsula

From Sato, K. *et al.* (1985)

\* Recorded in the bibliography, although its presence was unclear

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\*\*\*\* Endemic based on Satake *et al.* (1982; 1989) and Iwatsuki (1992), listed as "endemic to Japan" or "limited to Japan"

Scientific name	IUCN RL **	MoE RL ***	Endemic to Japan ****
<b>PTERIDOPHYTA</b>			
<b>EQUISETACEAE</b>			
<i>Equisetum arvense</i>			
<i>Equisetum arvense</i> var. <i>boreale</i>			
<i>Equisetum hyemale</i>			
<i>Equisetum palustre</i>			
<i>Equisetum fluviatile</i>			
<b>LYCOPODIACEAE</b>			
* <i>Lycopodium alpinum</i>		EN	
<i>Lycopodium annotinum</i>			
<i>Lycopodium annotinum</i> var. <i>pungens</i>			
<i>Lycopodium clavatum</i> var. <i>nipponicum</i>			
<i>Lycopodium complanatum</i>			
<i>Lycopodium obscurum</i> forma <i>strictum</i>			
<i>Lycopodium obscurum</i> forma <i>flabellatum</i>			
<i>Lycopodium selago</i> var. <i>appressum</i>			
<i>Lycopodium selago</i> var. <i>miyoshianum</i>			
<i>Lycopodium serratum</i>			
<i>Lycopodium stichense</i> var. <i>nikoense</i>			
<b>SELAGINELLACEAE</b>			
<i>Selaginella helvetica</i>			
<i>Selaginella shakotanensis</i>			
<i>Selaginella sibirica</i>		VU	
<i>Selaginella tamariscina</i>			
<b>ISOETACEAE</b>			
<i>Isoetes asiatica</i>		VU	
<b>OPHIOGLOSSACEAE</b>			
<i>Botrychium lunaria</i>		VU	
<i>Botrychium robustum</i>			
<b>OSMUNDACEAE</b>			
<i>Osmunda asiatica</i>			
<i>Osmunda japonica</i>			
<b>HYMENOPHYLLACEAE</b>			
<i>Mecodium wrightii</i>			
<b>PTERIDACEAE</b>			
<i>Adiantum pedatum</i>			
<i>Coniogramme fraxinea</i> var. <i>intermedia</i>			
<i>Dennstaedtia hirsuta</i>			
* <i>Dennstaedtia wilfordii</i>			
<i>Peridium aquilium</i> var. <i>latiusculum</i>			
<b>PLAGIOLOGYRIACEAE</b>			
<i>Plagiogyria matsumureana</i>			
<b>ASPIDACEAE</b>			
<i>Athyrium alpestre</i>			
<i>Athyrium crenuloserrulatum</i>			
<i>Athyrium filix-femina</i> var. <i>longipes</i>			
<i>Athyrium melanolepis</i>			
<i>Athyrium pterorachis</i>			
<i>Athyrium pycnosorum</i>			
<i>Athyrium vidalii</i>			
<i>Athyrium vidalii</i> var. <i>yamadae</i>			
<i>Athyrium yokoscense</i>			
<i>Dryopteris amurensis</i>			

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Scientific name	IUCN RL **	MoE RL ***	Endemic to Japan ****
<i>Dryopteris austriaca</i>			
<i>Dryopteris crassirhizoma</i>			
<i>Dryopteris fragans</i>			
<i>Dryopteris monticola</i>			
<i>Lastrea dryopteris</i>			
<i>Lastrea nipponica</i>			
<i>Lastrea phegopteris</i>			
<i>Lastrea quepaertensis</i>			
<i>Lastrea robertiana</i> var. <i>longula</i>			
<i>Lastrea thelypteris</i>			
<i>Matteuccia orientalis</i>			
<i>Matteuccia struthiopteris</i>			
<i>Onoclea sensibilis</i>			
<i>Polystichum braunii</i>			
<i>Polystichum retroso-paleaceum</i>			
<i>Polystichum retroso-paleaceum</i> var. <i>coraiense</i>			
<i>Polystichum tripterum</i>			
<i>Rumohra miqueliana</i>			
<i>Rumohra mutica</i>			
<i>Rumohra standishii</i>			
* <i>Woodsia manchuriensis</i>			
<i>Woodsia polystichoides</i>			
<b>BLECHNACEAE</b>			
<i>Blechnum nipponicum</i>			
<b>ASPLENIACEAE</b>			
<i>Asplenium incisum</i>			
<i>Asplenium scolopendrium</i>			
<b>POLYPODIACEAE</b>			
<i>Pleopeltis ussuriensis</i> var. <i>distans</i>			
<i>Polypodium fauriei</i>			
<i>Polypodium virginianum</i>			
<b>SPERMATOPHYTA</b>			
<b>GYMNOSPERMAE</b>			
<b>TAXACEAE</b>			
<i>Taxus cuspidata</i>			
<b>PINACEAE</b>			
<i>Abies sachalinensis</i>			
<i>Larix kaempferi</i>			
<i>Picea glehnii</i>			
<i>Picea jezoensis</i>			
<i>Picea jezoensis</i> var. <i>takedae</i>			
<i>Pinus pumila</i>			
<b>CUPRESSACEAE</b>			
<i>Juniperus chinensis</i> var. <i>sargentii</i>			
<i>Juniperus communis</i> var. <i>montana</i>		EN	
<b>ANGIOSPERMAE</b>			
<b>DICOTYLEDONEAE</b>			
<b>CHLORANTHACEAE</b>			
<i>Chloranthus japonicus</i>			
<i>Chloranthus serratus</i>			
<b>SALICACEAE</b>			
<i>Populus nigra</i> var. <i>italica</i>			
<i>Populus maximowiczii</i>			
<i>Populus tremula</i> var. <i>dauriana</i>			
<i>Salix hultenii</i> var. <i>angustifolia</i>			
<i>Salix pet-susu</i>			
<i>Salix reinii</i>			

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Scientific name	IUCN RL **	MoE RL ***	Endemic to Japan ****
<i>Salix reinii</i> var. <i>eriocarpa</i>			
<i>Salix rorida</i>			
<i>Salix sachalinensis</i>			
<i>Salix taraikensis</i>		VU	
<i>Salix vulpina</i>			
<i>Salix yezoalpina</i>		EN	
<i>Toisusu urbaniana</i>			
<i>Toisusu urbaniana</i> var. <i>schneideri</i>			
<b>JUGLANDACEAE</b>			
<i>Juglans ailanthifolia</i>			
<b>BETULACEAE</b>			
<i>Alnus hirsuta</i>			
<i>Alnus hirsuta</i> var. <i>sibirica</i>			
<i>Alnus japonica</i>			
<i>Alnus mayrii</i>			
<i>Alnus maximowiczii</i>			
<i>Betula ermanii</i>			
<i>Betula maximowicziana</i>			
<i>Betula platyphylla</i> var. <i>japonica</i>			
<i>Carpinus cordata</i>			
<i>Ostrya japonica</i>			
<b>FAGACEAE</b>			
<i>Quercus dentata</i>			
<i>Quercus mongolica</i> var. <i>grosseserrata</i>			
<b>ULMACEAE</b>			
<i>Ulmus davidiana</i> var. <i>japonicus</i>			
<i>Ulmus davidiana</i> var. <i>japonicus</i> forma <i>suberosa</i>			
<i>Ulmus laciniata</i>			
<b>MORACEAE</b>			
<i>Humulus lupulus</i> var. <i>cordifolius</i>			
<i>Morus bombycis</i>			
<b>URTICACEAE</b>			
<i>Boehmeria tricuspis</i>			
<i>Boehmeria tricuspis</i> var. <i>unicuspis</i>			
<i>Laportea bulbifera</i>			
* <i>Urtica angustifolia</i>			
<i>Urtica platyphylla</i>			
<b>SANTALACEAE</b>			
<i>Thesium refractum</i>			
<b>LORANTHACEAE</b>			
<i>Viscum album</i> var. <i>coloratum</i> forma <i>rubro-auratiacum</i>			
<b>ARISTOLOCHIACEAE</b>			
<i>Asarum heterotropoides</i>			
<b>POLYGONACEAE</b>			
<i>Polygonum amphibium</i>			
<i>Polygonum aviculare</i>			
<i>Polygonum bistorta</i>			
<i>Polygonum caespitosum</i> var. <i>laxiflorum</i>			
<i>Polygonum convolvulus</i>			
* <i>Polygonum dentato-alatum</i>			
* <i>Polygonum dumetorum</i>			
<i>Polygonum filiforme</i>			
<i>Polygonum lapathifolium</i>			
<i>Polygonum longisetum</i>			
<i>Polygonum nepalense</i>			
<i>Polygonum persicaria</i>			
<i>Polygonum sachalinense</i>			

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<i>Polygonum thunbergii</i>			
<i>Polygonum viviparum</i>			
<i>Polygonum weyrichii</i>			
<i>Polygonum weyrichii</i> var. <i>alpinum</i>			
<i>Rumex acetosella</i>			
<i>Rumex crispus</i>			
<i>Rumex longifolius</i>		VU	
<i>Rumex montanus</i>			
<i>Rumex obtusifolius</i>			
<b>CHENOPODIACEAE</b>			
<i>Atriplex gmelinii</i>			
<i>Atriplex subcordata</i>			
<i>Chenopodium album</i>			
<i>Chenopodium album</i> var. <i>centrorubrum</i>			
<i>Chenopodium glaucum</i>			
<i>Kochia scoparia</i>			
<i>Salsola komarovii</i>			
<b>AMARANTHACEAE</b>			
<i>Amaranthus lividus</i>			
<b>CARYOPHYLLACEAE</b>			
<i>Arenaria merckioides</i>			
<i>Cerastium fischerianum</i>			
<i>Cerastium holosteoides</i>			
<i>Cerastium holosteoides</i> var. <i>hallaisanense</i>			
<i>Cucubalus baccifer</i> var. <i>japonicus</i>			
<i>Dianthus superbus</i>			
<i>Dianthus superbus</i> var. <i>speciosus</i>			
<i>Honkenya peploides</i> var. <i>major</i>			
<i>Moehringia lateriflora</i>			
<i>Sagina maxima</i> forma <i>crassicaulis</i>			
<i>Silene alba</i>			
* <i>Silene armeria</i>			
<i>Silene noctiflora</i>			
<i>Spergula arvensis</i>			
<i>Spergula arvensis</i> var. <i>sativa</i>			
<i>Stellaria fenzlii</i>			
<i>Stellaria graminea</i>			
<i>Stellaria media</i>			
<i>Stellaria radians</i>			
<i>Stellaria ruscifolia</i>		VU	
<b>NYMPHAEACEAE</b>			
<i>Nuphar pumilum</i>		VU	
<i>Nymphaea tetragona</i>			
<b>CERCIDIPHYLLACEAE</b>			
<i>Cercidiphyllum japonicum</i>	LR/nt		
<b>RANUNCULACEAE</b>			
<i>Aconitum gigas</i>			
<i>Aconitum maximum</i> var. <i>misaoanum</i>		VU	
<i>Aconitum maximum</i> var. <i>misaoanum</i> forma <i>album</i>			
<i>Aconitum yesoense</i>			
<i>Aconitum yesoense</i> var. <i>macroyesoense</i>			
<i>Actaea asiatica</i>			
<i>Actaea erythrocarpa</i>			
<i>Adonis amurensis</i>		VU	
<i>Anemone debilis</i>			
<i>Anemone flaccida</i>			
<i>Anemone flaccida</i> forma <i>viridis</i>			

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<i>Anemone narcissiflora</i>			
<i>Anemone yezoensis</i>			
<i>Aquilegia buergeriana</i> var. <i>oxysepala</i>			
<i>Aquilegia flabellata</i> var. <i>pumila</i>			
<i>Caltha palustris</i> var. <i>barthei</i>			
<i>Cimicifuga simplex</i>			
<i>Clematis fusca</i>		EN	
<i>Clematis ochotensis</i>			
<i>Coptis trifolia</i>			
<i>Glaucidium palmatum</i>			
<i>Ranunculus nipponicus</i> var. <i>major</i>			
<i>Ranunculus quelpaertensis</i>			
<i>Ranunculus repens</i>			
<i>Ranunculus reptans</i>		EN	
<i>Ranunculus sceleratus</i>			
<i>Thalictrum aquilegifolium</i>			
<i>Thalictrum foetidum</i> var. <i>glabrescens</i>		VU	
<i>Thalictrum minus</i> var. <i>hypoleucum</i>			
<i>Thalictrum minus</i> var. <i>stipellatum</i>			
<i>Thalictrum sachalinense</i>			
<i>Trollius riederianus</i>			
<b>BERBERIDACEAE</b>			
<i>Caulophyllum robustum</i>			
<i>Diphylleia grayi</i>			
<b>MAGNOLIACEAE</b>			
<i>Magnolia kobus</i> var. <i>borealis</i>			
<i>Magnolia obovata</i>			
<i>Schisandra chinensis</i>			
<b>PAPAVERACEAE</b>			
<i>Chelidonium majus</i> var. <i>asiaticum</i>			
<i>Corydalis ambigua</i>			
<i>Corydalis speciosa</i>			
<i>Dicentra peregrina</i>			
<i>Dicentra peregrina</i> forma <i>alba</i>			
<b>CRUCIFERAE</b>			
<i>Arabis glabra</i>			
<i>Arabis lyrata</i> var. <i>kamtschatica</i>			
<i>Arabis pendula</i>			
<i>Arabis serrata</i> var. <i>glauca</i>			
<i>Arabis stelleri</i> var. <i>japonica</i>			
<i>Barbarea orthoceras</i>			
<i>Brassica napus</i>			
<i>Capsella bursa-pastoris</i>			
<i>Cardamine leucantha</i>			
<i>Cardamine scutata</i>			
<i>Cochlearia oblongifolia</i>		EN	
<i>Draba borealis</i>			
<i>Erysimum cheiranthoides</i> var. <i>japonicum</i>			
<i>Isatis tinctoria</i> var. <i>yezoensis</i>		CR	
<i>Macropodium pterospermum</i>			
<i>Rorippa islandica</i>			
<i>Rorippa sylvestris</i>			
<b>DROSERACEAE</b>			
<i>Drosera rotundifolia</i>			
<b>CRASSULACEAE</b>			
<i>Sedum aizoon</i>			
<i>Sedum ishidae</i>			

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<i>Sedum iwarenge</i> var. <i>boehmeri</i>		VU	
<i>Sedum kamschaticum</i>			
* <i>Sedum pluricaule</i>			
<i>Sedum rosea</i>			
<i>Sedum telephium</i> var. <i>purpureum</i>			
<i>Sedum verticillatum</i>			
<b>SAXIFRAGACEAE</b>			
<i>Astilbe thunbergii</i> var. <i>congesta</i>			
<i>Boykinia lycoctonifolia</i>			
<i>Chrysosplenium flagelliferum</i>			
<i>Chrysosplenium grayanum</i>			
<i>Chrysosplenium kamschaticum</i>			
<i>Hydrangea paniculata</i>			
<i>Hydrangea paniculata</i> var. <i>intermedia</i>			
<i>Hydrangea petiolaris</i>			
<i>Parnassia palustris</i>			
<i>Parnassia palustris</i> var. <i>tenuis</i>			
<i>Ribes latifolius</i>			
<i>Ribes latifolius</i> forma <i>siretokense</i>			
<i>Ribes sachalinense</i>			
<i>Ribes triste</i>			
<i>Saxifraga cherlerioides</i> var. <i>rebunshirensis</i>			
<i>Saxifraga fortunei</i> var. <i>incisolobata</i>			
<i>Saxifraga fusca</i>			
<i>Saxifraga japonica</i>			
<i>Saxifraga merkii</i>			
<i>Saxifraga sachalinensis</i>			
<i>Schizophragma hydrangeoides</i>			
<i>Tiarella polyphylla</i>			
<b>ROSACEAE</b>			
<i>Agrimonia pilosa</i>			
<i>Aruncus dioicus</i> var. <i>kamschaticus</i>			
<i>Filipendula multijuga</i> var. <i>ciliata</i>			
<i>Filipendula kamschatica</i>			
<i>Fragaria ananassa</i>			
<i>Fragaria iinumae</i>			
<i>Fragaria yezoensis</i>			
<i>Geum aleppicum</i>			
<i>Geum calthaeifolium</i> var. <i>nipponicum</i>			
<i>Geum macrophyllum</i>			
<i>Geum pentapetalum</i>			
<i>Potentilla centigrana</i>			
<i>Potentilla dickinsii</i>			
<i>Potentilla egedei</i> var. <i>groenlandica</i>			
<i>Potentilla fragarioides</i> var. <i>major</i>			
<i>Potentilla matsumurae</i>			
<i>Potentilla megalantha</i>			
<i>Potentilla miyabei</i>		CR	
<i>Potentilla nipponica</i>			
<i>Potentilla norvegica</i>			
<i>Potentilla palustris</i>			
<i>Potentilla stolonifera</i>			
<i>Prunus maximowiczii</i>			
<i>Prunus maximowiczii</i> forma <i>rotundifolia</i>			
<i>Prunus nipponica</i>			
<i>Prunus nipponica</i> var. <i>kurilensis</i>			
* <i>Prunus padus</i>			

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<i>Prunus sargentii</i>			
<i>Prunus ssiori</i>			
<i>Rosa acicularis</i>			
<i>Rosa rugosa</i>			
<i>Rubus crataegifolius</i>			
<i>Rubus idaeus</i> var. <i>aculeatissimus</i>			
<i>Rubus idaeus</i> var. <i>aculeatissimus</i> forma <i>concolor</i>			
<i>Rubus parvifolius</i>			
<i>Rubus pedatus</i>			
<i>Rubus phoenicolasius</i>			
<i>Rubus pseudo-japonicus</i>			
<i>Sanguisorba stipulata</i>			
<i>Sanguisorba tenuifolia</i> var. <i>alba</i>			
<i>Sanguisorba tenuifolia</i> var. <i>grandiflora</i>			
<i>Sorbaria sorbifolia</i> var. <i>stellipila</i>			
<i>Sorbus alnifolia</i>			
<i>Sorbus commixta</i>			
<i>Sorbus matsumurana</i>			
<i>Sorbus sambucifolia</i>			
<i>Spiraea betulifolia</i>			
<i>Spiraea betulifolia</i> var. <i>aemeliana</i>			
<i>Spiraea betulifolia</i> var. <i>aemeliana</i> forma <i>glabra</i>			
<i>Spiraea media</i> var. <i>sericea</i>		EN	
<i>Waldsteinia ternata</i>			
<b>LEGUMINOSAE</b>			
<i>Astragalus japonicus</i>		CR	
<i>Desmodium oxyphyllum</i>			
<i>Hedysarum hedysaroides</i>		VU	
<i>Lathyrus japonicus</i>			
<i>Lathyrus japonicus</i> var. <i>aleuticus</i>			
<i>Lathyrus japonicus</i> var. <i>aleuticus</i> forma <i>albinus</i>			
<i>Lespedeza bicolor</i>			
* <i>Lotus cornicularis</i> var. <i>japonicus</i>			
<i>Maackia tashiroi</i>			
<i>Melilotus alba</i>			
<i>Robinia pseudo-acasia</i>			
<i>Thermopsis lupinoides</i>			
<i>Trifolium hybridum</i>			
<i>Trifolium lupinaster</i>			
<i>Trifolium pratense</i>			
<i>Trifolium repens</i>			
<i>Vicia amoena</i>			
<i>Vicia cracca</i>			
<i>Vicia cracca</i> forma <i>canescens</i>			
<i>Vicia japonica</i>			
<i>Vicia unijuga</i>			
<b>GERANIACEAE</b>			
<i>Geranium erianthum</i>			
* <i>Geranium eriostemon</i> var. <i>reinii</i>			
<i>Geranium krameri</i>			
<i>Geranium sibiricum</i> var. <i>glabrius</i>			
<i>Geranium thunbergii</i>			
<i>Geranium yezoense</i>			
<i>Geranium yezoense</i> var. <i>pseudo-palustre</i>			
<b>OXALIDACEAE</b>			
<i>Oxalis acetosella</i>			
<i>Oxalis stricta</i>			



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<b>RUTACEAE</b>			
<i>Phellodendron amurense</i> var. <i>sachalinense</i>			
<i>Skimmia japonica</i> var. <i>intermedia</i>			
<i>Skimmia japonica</i> var. <i>intermedia</i> forma <i>repens</i>			
<b>SIMAROUBACEAE</b>			
<i>Picrasma quassioides</i>			
<b>EUPHORBIACEAE</b>			
<i>Daphniphyllum macropodum</i> var. <i>humile</i>			
<b>BUXACEAE</b>			
<i>Pachysandra terminalis</i>			
<b>EMPETRACEAE</b>			
<i>Empetrum nigrum</i> var. <i>japonicum</i>			
<b>ANACARDIACEAE</b>			
<i>Rhus ambigua</i>			
<i>Rhus trichocarpa</i>			
<b>AQUIFOLIACEAE</b>			
<i>Ilex crenata</i> var. <i>paludosa</i>			
<i>Ilex rugosa</i>			
<i>Ilex sugerokii</i>			
<b>CELASTRACEAE</b>			
<i>Celastrus orbiculatus</i> var. <i>papillosus</i>			
<i>Euonymus alatus</i> forma <i>ciliatodentatus</i>			
<i>Euonymus macropterus</i>			
<i>Euonymus oxyphyllus</i>			
<i>Euonymus sieboldianus</i>			
<b>STAPHYLEACEAE</b>			
<i>Staphylea bumalda</i>			
<b>ACERACEAE</b>			
<i>Acer japonicum</i>			
<i>Acer mono</i>			
<i>Acer mono</i> var. <i>mayrii</i>			
<i>Acer tschonoskii</i>			
<i>Acer ukurunduense</i>			
<i>Acer ukurunduense</i> var. <i>pilosum</i>			
<b>BALSAMINACEAE</b>			
<i>Impatiens noli-tangere</i>			
* <i>Impatiens textori</i>			
<b>VITACEAE</b>			
<i>Ampelopsis brevipedunculata</i>			
<i>Vitis coignetiae</i>			
<b>TILIACEAE</b>			
<i>Tilia japonica</i>			
<i>Tilia maximowicziana</i>			
<i>Tilia maximowicziana</i> var. <i>yesoana</i>			
<b>ACTINIDIACEAE</b>			
<i>Actinidia arguta</i> var. <i>platyphylla</i>			
<i>Actinidia kolomikta</i>			
<i>Actinidia polygama</i>			
<b>GUTTIFERAE</b>			
<i>Hypericum ascyron</i>			
<i>Hypericum erectum</i>			
<i>Hypericum kamtschaticum</i>			
<i>Hypericum yezoense</i>		VU	
<b>VIOLACEAE</b>			
<i>Viola acuminata</i>			
<i>Viola blandaeformis</i>			
<i>Viola blandaeformis</i> var. <i>pilosa</i>		VU	

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<i>Viola collina</i>			
* <i>Viola grypoceras</i>			
<i>Viola kitamiana</i>			
<i>Viola kusanoana</i>			
<i>Viola langsdorffii</i>		VU	
<i>Viola langsdorffii</i> forma <i>parviflora</i>			
<i>Viola mandshurica</i>			
<i>Viola repens</i>		CR	
<i>Viola sacchalimensis</i>			
<i>Viola selkirkii</i>			
<i>Viola verecunda</i>			
<i>Viola verecunda</i> var. <i>semilunaris</i>			
<b>THYMELAEACEAE</b>			
<i>Daphne kamtschatica</i> var. <i>jezoensis</i>			
<i>Daphne miyabeana</i>			
<b>LYTHRACEAE</b>			
<i>Lythrum salicaria</i>			
<b>ONAGRACEAE</b>			
<i>Circaea alpina</i>			
<i>Epilobium amurense</i>			
<i>Epilobium angustifolium</i>			
<i>Epilobium cephalostigma</i>			
<i>Epilobium cephalostigma</i> var. <i>nudicarpum</i>			
<i>Epilobium dielsii</i>			
<i>Epilobium fauriei</i>			
<i>Epilobium foucaudianum</i>			
<i>Epilobium glandulosum</i> var. <i>asiaticum</i>			
<i>Oenothera muricata</i>			
<b>ARALIACEAE</b>			
<i>Aralia cordata</i>			
<i>Aralia elata</i>			
<i>Kalopanax pictum</i>			
<b>UMBELLIFERAE</b>			
<i>Aegopodium alpestre</i>			
<i>Angelica anomala</i>			
<i>Angelica edulis</i>			
<i>Angelica genuflexa</i>			
<i>Angelica ursina</i>			
<i>Anthriscus sylvestris</i>			
<i>Bupleurum longiradiatum</i> var. <i>breviradiatum</i>			
* <i>Bupleurum longiradiatum</i> var. <i>shikotanense</i>			
<i>Chamaele decumbens</i>			
<i>Cicuta virosa</i>			
<i>Coelopleurum lucidum</i> var. <i>gmelinii</i>			
<i>Conioselinum filicinum</i>			
<i>Conioselinum kamtschaticum</i>			
<i>Cryptotaenia japonica</i>			
* <i>Daucus carota</i>			
<i>Glehnia littoralis</i>			
<i>Heracleum dulce</i>			
<i>Hydrocotyle ramiflora</i>			
<i>Ligusticum hultenii</i>			
<i>Oenanthe javanica</i>			
<i>Osmorhiza aristata</i>			
<i>Peucedanum multivittatum</i>			
<i>Peucedanum terebinthaceum</i>			
<i>Pleurospermum kamtschaticum</i>			

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Scientific name	IUCN RL **	MoE RL ***	Endemic to Japan ****
<i>Sanicula chinensis</i>			
* <i>Sium suave</i> var. <i>nipponicum</i>		EN	
<i>Spuriopimpinella calycina</i>			
<i>Tilingia ajanensis</i>			
<i>Tilingia holopetala</i>			
<i>Torilis japonica</i>			
<b>CORNACEAE</b>			
<i>Cornus canadensis</i>			
<i>Cornus controversa</i>			
<b>DIAPENSIACEAE</b>			
<i>Diapensia lapponica</i> var. <i>obovata</i>			
<b>PYROLACEAE</b>			
<i>Chimaphila japonica</i>			
<i>Monotropastrum globosum</i>			
<i>Pyrola alpina</i>			
<i>Pyrola faurieana</i>		EN	
<i>Pyrola japonica</i> forma <i>subaphylla</i>			
<i>Pyrola renifolia</i>			
<i>Pyrola secunda</i>			
<b>ERICACEAE</b>			
<i>Andromeda polifolia</i>			
<i>Arctericia nana</i>			
<i>Arctous alpinus</i> var. <i>japonicus</i>			
<i>Bryanthus gmelinii</i>		VU	
<i>Cassiope lycopodioides</i>			
* <i>Gaultheria adenothrix</i>			
<i>Gaultheria miqueliana</i>			
<i>Harrimanella stelleriana</i>			
<i>Ledum palustre</i> var. <i>diversipilosum</i>			
<i>Leucothoe grayana</i> var. <i>oblongifolia</i>			
<i>Leucothoe grayana</i> var. <i>yezoensis</i>			
<i>Loiseleuria procumbens</i>			
<i>Menziesia pentandra</i>			
<i>Phyllodoce aleutica</i>			
<i>Phyllodoce caerulea</i>			
<i>Phyllodoce caerulea</i> forma <i>yezoensis</i>			
<i>Rhododendron aureum</i>			
<i>Rhododendron brachycarpum</i>			
<i>Rhododendron camtschaticum</i>			
<i>Tripetaleia bracteata</i>			
<i>Vaccinium hirtum</i>			
<i>Vaccinium japonicum</i>			
<i>Vaccinium ovalifolium</i>			
<i>Vaccinium ovalifolium</i> var. <i>coriaceum</i>			
<i>Vaccinium oxycoccus</i>			
<i>Vaccinium praestans</i>			
<i>Vaccinium smallii</i>			
<i>Vaccinium uliginosum</i>			
<i>Vaccinium vitis-idaea</i>			
<b>PRIMULACEAE</b>			
<i>Glaux maritima</i> var. <i>obtusifolia</i>			
<i>Lysimachia thyrsiflora</i>			
<i>Lysimachia vulgaris</i> var. <i>davurica</i>			
<i>Primula cuneifolia</i>			
<i>Primula cuneifolia</i> forma <i>leucantha</i>			
<i>Primula modesta</i> var. <i>fauriei</i>			
<i>Primula modesta</i> var. <i>matsumurae</i>		VU	

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<i>Primula jesoana</i> var. <i>pubescens</i>			
<i>Trientalis europaea</i>			
<i>Trientalis europaea</i> var. <i>arctica</i>			
<b>OLEACEAE</b>			
<i>Fraxinus lanuginosa</i>			
<i>Fraxinus mandshurica</i> var. <i>japonica</i>			
<i>Ligustrum tshonoskii</i> var. <i>glabrescens</i>			
<i>Syringa reticulata</i>			
<i>Syringa reticulata</i> var. <i>macrophylla</i>			
<i>Syringa reticulata</i> var. <i>tatewakiana</i>			
<b>GENTIANACEAE</b>			
<i>Fauria crista-galli</i>			
<i>Gentiana triflora</i> var. <i>japonica</i>			
<i>Gentiana triflora</i> var. <i>horomuiensis</i>			
<i>Gentiana triflora</i> var. <i>montana</i>			
<i>Gentiana zollingeri</i>			
<i>Halenia corniculata</i>			
<i>Menyanthes trifoliata</i>			
<i>Swertia tetrapetala</i>			
<i>Tripterospermum japonicum</i>			
<b>APOCYNACEAE</b>			
<i>Apocynum venetum</i> var. <i>basikurumon</i>		EN	
<b>ASCLEPIADACEAE</b>			
<i>Cynanchum caudatum</i>			
<b>CONVOLVULACEAE</b>			
* <i>Calystegia japonica</i>			
<i>Calystegia sepium</i> var. <i>americana</i>			
<i>Calystegia soldanella</i>			
<b>BORAGINACEAE</b>			
<i>Mertensia asiatica</i>			
<i>Myosotis scorpioides</i>			
<b>LABIATAE</b>			
<i>Agastache rugosa</i>			
<i>Agastache rugosa</i> forma <i>hypoleuca</i>			
<i>Clinopodium chinense</i> var. <i>parviflorum</i>			
<i>Clinopodium chinense</i> var. <i>shibetchense</i>			
<i>Clinopodium gracile</i> var. <i>sachalinense</i>			
<i>Dracocephalum argunense</i>		EN	
<i>Elsholtzia ciliata</i>			
<i>Galeopsis bifida</i>			
<i>Lamium album</i> var. <i>barbatum</i>			
<i>Lycopus uniflorus</i>			
<i>Mentha arvensis</i> var. <i>piperascens</i>			
<i>Nepeta subsessilis</i> var. <i>yessoensis</i>			
<i>Prunella vulgaris</i> var. <i>lilacina</i>			
<i>Scutellaria dependens</i>			
<i>Scutellaria pekinensis</i> var. <i>ussuriensis</i>			
<i>Scutellaria pekinensis</i> var. <i>transitra</i>			
<i>Scutellaria strigillosa</i>			
<i>Stachys japonica</i> var. <i>villosa</i>			
<i>Teucrium viscidum</i> var. <i>miquelianum</i>			
* <i>Teucrium teinense</i>			
<i>Thymus quinquecostatus</i>			
<b>SOLANACEAE</b>			
<i>Solanum megacarpum</i>			
<i>Solanum nigrum</i>			

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<b>SCROPHULARIACEAE</b>			
<i>Linaria japonica</i>			
<i>Mimulus nepalensis</i> var. <i>japonica</i>			
<i>Mimulus sessilifolius</i>			
<i>Pedicularis apodochila</i>			
<i>Pedicularis chamissonis</i> var. <i>japonica</i>			
<i>Pedicularis respinata</i>			
<i>Pedicularis schistostegia</i>		VU	
* <i>Pedicularis yezoensis</i>			
<i>Pentstemon frutescens</i>			
<i>Scrophularia grayana</i>			
<i>Verbascum thapsus</i>			
<i>Veronica americana</i>			
<i>Veronica persica</i>			
<i>Veronica schmidtiana</i>			
<i>Veronica schmidtiana</i> var. <i>lineariloba</i>			
<i>Veronica stelleri</i> var. <i>longistyla</i>		VU	
<i>Veronicastrum sibiricum</i>			
<b>OROBANCHACEAE</b>			
<i>Orobanche coerulescens</i>			
<b>LENTIBULARIACEAE</b>			
<i>Urticularia japonica</i>		VU	
<b>PHRYMACEAE</b>			
<i>Phryma leptostachya</i> var. <i>asiatica</i>			
<b>PLANTAGINACEAE</b>			
<i>Plantago asiatica</i>			
<i>Plantago camtschatica</i>			
<i>Plantago lanceolata</i>			
<i>Plantago major</i> var. <i>japonica</i> forma <i>yezomaritima</i>			
<b>RUBIACEAE</b>			
<i>Asperula odorata</i>			
<i>Galium kamschaticum</i>			
<i>Galium kamschaticum</i> var. <i>acutifolium</i>			
* <i>Galium mollugo</i>			
<i>Galium trifidum</i> var. <i>brevipedunculatum</i>			
<i>Galium trifloriforme</i>			
<i>Galium verum</i> var. <i>asiaticum</i>			
<i>Galium verum</i> var. <i>trachycarpum</i>			
<i>Rubia jesoensis</i>			
<b>CAPRIFOLIACEAE</b>			
<i>Linnaea borealis</i>			
<i>Lonicera alpigena</i> var. <i>glehnii</i>		EN	
<i>Lonicera caerulea</i> var. <i>edulis</i>			
<i>Lonicera caerulea</i> var. <i>emphylocalyx</i>			
<i>Lonicera chamissoi</i>		VU	
<i>Lonicera chrysantha</i>		VU	
<i>Lonicera sachalinensis</i>		VU	
<i>Sambucus sieboldiana</i> var. <i>miquelii</i>			
<i>Viburnum furcatum</i>			
<i>Viburnum opulus</i> var. <i>calvescens</i>			
<i>Viburnum wrightii</i>			
<i>Weigela middendorffiana</i>			
<b>ADOXACEAE</b>			
<i>Adoxa moschatellina</i>			
<b>VALERIANACEAE</b>			
<i>Patrinia gibbosa</i>			
<i>Patrinia scabiosaefolia</i>			

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Scientific name	IUCN RL **	MoE RL ***	Endemic to Japan ****
<i>Patrinia sibirica</i>		EN	
<i>Patrinia villosa</i>			
<i>Valeriana fauriei</i>			
<b>CUCURBITACEAE</b>			
<i>Gynostemma pentaphyllum</i>			
<i>Schizopepon bryoniaefolius</i>			
<b>CAMPANULACEAE</b>			
<i>Adenophora pereskiaefolia</i> var. <i>heterotricha</i>			
<i>Adenophora triphylla</i> var. <i>japonica</i>			
<i>Campanula chamissonis</i>			
<i>Campanula lasiocarpa</i>			
<i>Lobelia sessilifolia</i>			
<i>Peracarpa carnososa</i> var. <i>circaeoides</i>			
<b>COMPOSITAE</b>			
<i>Achillea millefolium</i>			
<i>Achillea ptarmica</i> var. <i>macrocephala</i>			
<i>Achillea sibirica</i>			
<i>Adenocaulon himalaicum</i>			
<i>Anaphalis margaritacea</i> var. <i>angustior</i>			
<i>Arnica unalascensis</i>			
<i>Artemisia arctica</i>			
<i>Artemisia iwayamogi</i>			
<i>Artemisia japonica</i>			
<i>Artemisia japonica</i> forma <i>resedifolia</i>			
<i>Artemisia japonica</i> var. <i>macrocephala</i>			
<i>Artemisia keiskeana</i>			
<i>Artemisia koidzumii</i>			
<i>Artemisia koidzumii</i> var. <i>tsuneoi</i>		VU	
<i>Artemisia laciniata</i>		VU	
<i>Artemisia montana</i>			
<i>Artemisia montana</i> var. <i>shiretokoensis</i>			
<i>Artemisia schmidtiana</i>			
<i>Artemisia stelleriana</i>			
<i>Aster glehnii</i>			
<i>Aster scaber</i>			
<i>Bidens radiata</i> var. <i>pinnatifida</i>			
<i>Breca setosa</i>			
<i>Cacalia auriculata</i> var. <i>kamtschatica</i>			
<i>Cacalia hastata</i> var. <i>orientalis</i>			
<i>Carpesium triste</i>			
<i>Chrysanthemum leucanthemum</i>			
<i>Chrysanthemum vulgare</i> var. <i>boreale</i>		VU	
<i>Chrysanthemum yezoense</i>			
<i>Cirsium kamtschaticum</i>			
* <i>Cirsium pectinellum</i>			
<i>Cirsium pectinellum</i> var. <i>alpinum</i>			
* <i>Cirsium pendulum</i>			
* <i>Cirsium vulgare</i>			
<i>Erigeron acris</i>			
<i>Erigeron acris</i> var. <i>amplifolius</i>			
<i>Erigeron annuus</i>			
<i>Erigeron canadensis</i>			
<i>Erigeron thunbergii</i> var. <i>glabratus</i>			
<i>Eupatorium chinense</i> var. <i>sachalinense</i>			
<i>Gnaphalium sylvaticum</i>			
<i>Hieracium aurantiacum</i>			
<i>Hieracium umbellatum</i> var. <i>japonicum</i>			

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* <i>Hypochoeris radicata</i>			
<i>Inula salicina</i> var. <i>asiatica</i>			
<i>Ixeris dentata</i>			
<i>Ixeris dentata</i> var. <i>albiflora</i>			
<i>Ixeris repens</i>			
<i>Lactuca indica</i> var. <i>laciniata</i>			
<i>Lactuca raddeana</i> var. <i>elata</i>			
<i>Leibnitzia anandra</i>			
<i>Ligularia hodgsonii</i>			
<i>Matricaria inodora</i>			
<i>Matricaria matricarioides</i>			
<i>Matricaria tetragonosperma</i>			
<i>Petasites japonicus</i> var. <i>giganteus</i>			
<i>Picris hieracioides</i> var. <i>glabrescens</i>			
<i>Picris hieracioides</i> var. <i>alpina</i>			
<i>Rudbeckia serotina</i>			
<i>Saussurea riederi</i> var. <i>yezoensis</i>			
<i>Senecio cannabifolius</i>			
<i>Senecio nemorensis</i>			
<i>Senecio pseudo-arnica</i>			
<i>Senecio vulgaris</i>			
<i>Solidago virga-aurea</i> var. <i>leiocarpa</i>			
<i>Sonchus asper</i>			
<i>Sonchus brachyotus</i>			
<i>Sonchus oleraceus</i>			
<i>Taraxacum laevigatum</i>			
<i>Taraxacum officinale</i>			
<i>Taraxacum shikotanense</i>		EN	
<b>MONOCOTYLEDONEAE</b>			
<b>TYPHACEAE</b>			
<i>Typha latifolia</i>			
<b>SPARGANIACEAE</b>			
<i>Sparganium hyperboreum</i>		EN	
<i>Sparganium</i> sp.			
<b>POTAMOGETONACEAE</b>			
<i>Potamogeton fryeri</i>			
<i>Potamogeton natans</i>			
<b>ZOSTERACEAE</b>			
<i>Zostera nana</i>			
<b>SCHEUCHZERIAACEAE</b>			
<i>Scheuchzeria palustris</i>			
<b>GRAMINEAE</b>			
<i>Achnatherum pekinense</i>			
<i>Agrostis alba</i>			
<i>Agrostis borealis</i>			
<i>Agrostis clavata</i>			
<i>Agrostis flaccida</i>			
<i>Agrostis scabra</i>			
<i>Agrostis stolonifera</i>			
<i>Alopecurus aequalis</i> var. <i>amurensis</i>			
<i>Anthoxanthum odoratum</i>			
<i>Beckmannia syzigachne</i>			
<i>Brachypodium sylvaticum</i>			
<i>Bromus japonicus</i>			
<i>Bromus mollis</i>			
<i>Bromus pauciflorus</i>			
<i>Brylkinia caudata</i>			

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\*\* Red List categories of IUCN, details are given on the last page

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\*\*\*\* Endemic based on Satake et al. (1982; 1989) and Iwatsuki (1992), listed as "endemic to Japan" or "limited to Japan"

Scientific name	IUCN RL **	MoE RL ***	Endemic to Japan ****
<i>Calamagrostis epigeios</i>			
<i>Calamagrostis hakonensis</i>			
<i>Calamagrostis langsdorffii</i>			
<i>Calamagrostis neglecta</i> var. <i>aculeolata</i>			
<i>Calamagrostis purpurascens</i>			
<i>Calamagrostis sachalinensis</i>			
<i>Dactylis glomerata</i>			
<i>Deschampsia caespitosa</i> var. <i>festucaefolia</i>			
<i>Deschampsia flexuosa</i>			
<i>Echinochloa crus-galli</i>			
<i>Elymus dahuricus</i>			
<i>Elymus mollis</i>			
<i>Elymus sibiricus</i>			
<i>Festuca elatior</i>			
<i>Festuca ovina</i>			
<i>Festuca rubra</i>			
<i>Glyceria alnastretum</i>			
<i>Glyceria leptolepis</i>			
<i>Glyceria lithuanica</i>			
<i>Hierochloa alpina</i>			
<i>Hierochloa odorata</i> var. <i>pubescens</i>			
<i>Koeleria cristata</i>			
<i>Melica nutans</i>			
<i>Milium effusum</i>			
<i>Miscanthus sinensis</i>			
<i>Muhlenbergia curvيارistata</i> var. <i>nipponica</i>			
* <i>Muhlenbergia japonica</i>			
<i>Panicum bisulcatum</i>			
<i>Phalaris aruundinacea</i>			
<i>Phleum pratense</i>			
<i>Phragmites communis</i>			
<i>Poa annua</i>			
<i>Poa hisauchii</i>			
<i>Poa macrocalyx</i>			
<i>Poa macrocalyx</i> var. <i>scabriflora</i>			
<i>Poa macrocalyx</i> var. <i>tatewakiana</i>			
<i>Poa pratensis</i>			
<i>Poa radula</i>			
<i>Poa sachalinensis</i>			
<i>Poa trivialis</i>			
<i>Poa viridula</i>			
<i>Puccinellia pumila</i>			
<i>Sasa cernea</i>			
<i>Sasa kurilensis</i>			
<i>Sasa senanensis</i>			
<i>Sasa sendaica</i>			
<i>Sasa shiretokoensis</i>			
<i>Setaria faberi</i>			
<i>Setaria viridis</i> var. <i>pachystachys</i>			
<i>Trisetum sibiricum</i>			
<b>CYPERACEAE</b>			
<i>Carex aphanolepis</i>			
<i>Carex augustinowiczii</i>			
<i>Carex augustinowiczii</i> var. <i>sharensis</i>			
<i>Carex bigelowii</i>			
<i>Carex blepharicarpa</i>			
<i>Carex breviculmis</i>			



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\*\*\*\* Endemic based on Satake et al. (1982; 1989) and Iwatsuki (1992), listed as "endemic to Japan" or "limited to Japan"

Scientific name	IUCN RL **	MoE RL ***	Endemic to Japan ****
<i>Carex brunnescens</i>			
<i>Carex buxbaumii</i>		EN	
<i>Carex caryophyllea</i> var. <i>microtricha</i>			
<i>Carex conica</i>			
<i>Carex curta</i>			
<i>Carex curvicollis</i>			
* <i>Carex dispalata</i>			
<i>Carex dissitiflora</i>			
<i>Carex echinata</i>			
<i>Carex flavocuspis</i>			
<i>Carex foliosissima</i>			
<i>Carex gmelinii</i>			
<i>Carex hakkodensis</i>			
<i>Carex hakonensis</i>			
<i>Carex humilis</i> var. <i>nana</i>			
<i>Carex incisa</i>			
<i>Carex insanae</i>			
<i>Carex jacens</i>			
<i>Carex japonica</i>			
<i>Carex lanceolata</i>			
<i>Carex lasiocarpa</i> var. <i>occultans</i>			
<i>Carex limosa</i>			
<i>Carex longerostrata</i>			
<i>Carex lyngbyei</i>			
<i>Carex macrocephala</i>			
<i>Carex mertensii</i> var. <i>urostachys</i>			
<i>Carex michauxiana</i> var. <i>asiatica</i>			
<i>Carex middendorffii</i>			
<i>Carex mollicula</i>			
<i>Carex omiana</i> var. <i>monticola</i>			
<i>Carex oxyandra</i>			
<i>Carex parciflora</i>			
<i>Carex pauciflora</i>		VU	
<i>Carex pilosa</i>			
<i>Carex puberula</i>			
<i>Carex pumila</i>			
<i>Carex pyrenaica</i>			
<i>Carex remotiuscula</i>		EN	
<i>Carex rhynchophysa</i>			
<i>Carex sachalinensis</i>			
<i>Carex sadoensis</i>			
<i>Carex schmidtii</i>		VU	
<i>Carex scita</i> var. <i>riishirensis</i>			
<i>Carex scita</i> var. <i>scabrinervia</i>			
<i>Carex shimidzensis</i>			
<i>Carex stenantha</i> var. <i>taisetsuensis</i>			
<i>Carex stipata</i>			
<i>Carex subspathacea</i>		CR	
<i>Carex thunbergii</i> var. <i>appendiculata</i>			
<i>Carex traiziscana</i>		NT	
<i>Carex vanheurckii</i>		VU	
<i>Carex vesicaria</i>			
<i>Eleocharis congesta</i> var. <i>thermalis</i>			
<i>Eleocharis intersita</i>			
<i>Eleocharis margaritacea</i>		EN	
<i>Eriophorum vaginatum</i>			
<i>Rhynchospora alba</i>			

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Scientific name	IUCN RL **	MoE RL ***	Endemic to Japan ****
<i>Scirpus caespitosus</i>			
<i>Scirpus maximowiczii</i>		VU	
<i>Scirpus wichurae</i>			
<b>ARACEAE</b>			
<i>Arisaema angustatum</i> var. <i>penisulae</i>			
<i>Lysichiton camtschatcense</i>			
<i>Symplocarpus renifolius</i>			
<b>COMMELINACEAE</b>			
<i>Commelina communis</i>			
<b>JUNCACEAE</b>			
<i>Juncus beringensis</i>			
<i>Juncus effusus</i> var. <i>decipiens</i>			
<i>Juncus effusus</i> var. <i>decipiens</i> forma <i>gracilis</i>			
<i>Juncus filiformis</i>			
<i>Juncus gracillimus</i>			
<i>Juncus haenkei</i>			
<i>Juncus kamtschatcensis</i>			
<i>Juncus krameri</i>			
<i>Juncus mertensianus</i>			
<i>Juncus prominens</i>		EN	
<i>Juncus tenuis</i>			
<i>Juncus wallichianus</i>			
<i>Luzula capitata</i>			
<i>Luzula multiflora</i>			
<i>Luzula oligantha</i>			
<i>Luzula plumosa</i> var. <i>macrocarpa</i>			
<i>Luzula rostrata</i>			
<i>Luzula wahlenbergii</i>		NT	
<b>LILIACEAE</b>			
<i>Allium schoenoprasum</i>			
<i>Allium schoenoprasum</i> var. <i>yezomonticola</i>			
<i>Allium splendens</i>			
<i>Allium victorialis</i> var. <i>platyphyllum</i>			
<i>Asparagus schoberioides</i>			
<i>Clintonia udensis</i>			
<i>Convallaria keiskei</i>			
<i>Disporum sessile</i>			
<i>Disporum smilacinum</i>			
<i>Fritillaria camtschatcensis</i>			
* <i>Gagea lutea</i>			
<i>Gagea vaginata</i>		VU	
<i>Heloniopsis orientalis</i>			
<i>Hemerocallis middendorffii</i>			
<i>Hemerocallis yezoensis</i>			
<i>Hosta rectifolia</i>			
<i>Lilium cordatum</i> var. <i>glehnii</i>			
<i>Lilium maculatum</i> var. <i>dauricum</i>			
<i>Lilium medeoloides</i>			
<i>Lilium medeoloides</i> var. <i>kurilense</i>			
* <i>Lloydia serotina</i>			
<i>Maianthemum dilatatum</i>			
<i>Paris verticillata</i>			
<i>Polygonatum humile</i>			
<i>Polygonatum odoratum</i> var. <i>maximowiczii</i>			
<i>Smilacina japonica</i>			
<i>Streptopus amplexifolius</i> var. <i>papillatus</i>			
<i>Streptopus streptopoides</i>			

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\*\*\*\* Endemic based on Satake et al. (1982; 1989) and Iwatsuki (1992), listed as "endemic to Japan" or "limited to Japan"

Scientific name	IUCN RL **	MoE RL ***	Endemic to Japan ****
<i>Tofieldia coccinea</i>			
<i>Tofieldia coccinea</i> var. <i>fusca</i>			
* <i>Tofieldia okuboi</i>			
<i>Trillium apetalon</i>			
<i>Trillium apetalon</i> var. <i>atropurpureocarpum</i>			
<i>Trillium hagai</i>		CR	
<i>Trillium kamschaticum</i>			
<i>Trillium tschonoskii</i>			
<i>Veratrum grandiflorum</i>			
<b>IRIDACEAE</b>			
<i>Iris ensata</i> var. <i>spontanea</i>			
<i>Iris setosa</i>			
<b>ORCHIDACEAE</b>			
<i>Calanthe nipponica</i>		EN	
<i>Calanthe tricariata</i>		EN	
* <i>Cephalanthera erecta</i>			
<i>Cephalanthera longibracteata</i>			
* <i>Coeloglossum viride</i> var. <i>bracteatum</i>			
<i>Cremastra appendiculata</i>			
<i>Ephippianthus schmidtii</i>			
<i>Epipactis papillosa</i>			
<i>Gastrodia elata</i>			
<i>Goodyera maximowiczianum</i>			
<i>Goodyera repens</i>			
<i>Gymnadenia camtschatica</i>			
* <i>Gymnadenia cucullata</i>			
<i>Liparis makinoana</i>			
<i>Listera cordata</i>			
<i>Listera pinetorum</i>			
<i>Microstylis monophyllos</i>			
<i>Myrmechis japonica</i>			
<i>Orchis aristata</i>			
<i>Oreorchis patens</i>			
<i>Platanthera chorisiana</i>		VU	
<i>Platanthera metabifolia</i>			
<i>Platanthera phrydioides</i>			
<i>Platanthera phrydioides</i> var. <i>takedae</i>			
<i>Platanthera sachalinensis</i>			
<i>Platanthera tipuloides</i>			
<i>Spiranthes sinensis</i>			

## References

- Iwatsuki, K. (1992) Ferns and Fern Allies of Japan. HEIBONSHA Ltd., Publishers, Tokyo (in Japanese).
- Sato, K., Nishikawa, T., Sakai, S., Matsui, K., Kohyama, T., Koike, F., Kobayashi, M. and Ito, K. (1985) Flora of Vascular Plants of the Onnebetsudake Wilderness area and Shiretoko Peninsula. In: Conservation Reports of the Onnebetsu-dake Wilderness Area, Hokkaido, Japan, pp.115-172. Nature Conservation Bureau, Environment Agency, Japan (in Japanese with English summary).
- Satake, Y., Hara, H., Watari, A. and Tominari, T. (1989) Wild Flowers of Japan, Wood Plants. HEIBONSHA Ltd., Publishers, Tokyo (in Japanese).
- Satake, Y., Ohwi, J., Kitamura, S., Watari, A. and Tominari, T. (1982) WildFlowers of Japan. HEIBONSHA Ltd., Publishers, Tokyo(in Japanese).

## Other Vascular Plants Recorded on Shiretoko Peninsula

From the Records of Shiretoko Museum (July 2003) except species listed by Sato, K. *et al.* (1985).

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\*\*\*\* Endemic based on Satake *et al.* (1982; 1989) and Iwatsuki (1992), listed as "endemic to Japan" or "limited to Japan"

Scientific name	MoE RL ***	Endemic to Japan ****
<b>PTERIDACEAE</b>		
<i>Pleurosoriopsis makinoi</i>		
<b>ASPIDIACEAE</b>		
<i>Athyrium neglectum</i>		
<i>Dryopteris coreano-montana</i>		
<i>Polystichum microchlamys</i>		
<i>Polystichum craspedosorum</i>		
<i>Leptogramma pozoi</i> ssp. <i>mollissima</i>		
<i>Cystopteris fragilis</i>		
<b>ASPLENIACEAE</b>		
<i>Asplenium trichomanes</i>		
<b>CARYOPHYLLACEAE</b>		
<i>Silene dichotoma</i>		
<i>Stellaria sessilifolia</i>		
<b>RANUNCULACEAE</b>		
<i>Anemone dichotoma</i>	VU	
<i>Ranunculus silerifolius</i>		
<b>VIOLACEAE</b>		
<i>Viola biflora</i>		
<i>Viola patrinii</i>		
<b>ONAGRACEAE</b>		
<i>Epilobium pyrriholophum</i>		
<i>Oenothera erythrosepala</i>		
<i>Oenothera biennis</i>		
<b>PYROLACEAE</b>		
<i>Pyrola japonica</i>		
<b>GENTIANACEAE</b>		
<i>Pterygocalyx volubilis</i>	EN	
<b>BORAGINACEAE</b>		
<i>Cynoglossum asperrimum</i>		
<i>Mysotis arvensis</i>		
<i>Symphytum officinale</i>		
<b>LABIATAE</b>		
<i>Glechoma hederacea</i> var. <i>grandis</i>		
<b>SCROPHULARIACEAE</b>		
<i>Veronica tenella</i>		
<b>COMPOSITAE</b>		
<i>Crepis tectorum</i>		
<b>SPARGANIACEAE</b>		
<i>Sparganium glomeratum</i>	VU	
<i>Sparganium angustifolium</i>	VU	
<b>ZOSTERACEAE</b>		
<i>Phyllospadix ivatensis</i>		
<i>Zostera marina</i>		
<b>SCHEUCHZERIAEAE</b>		
<i>Triglochin palustre</i>	VU	
<b>CYPERACEAE</b>		
<i>Carex breviculmis</i> var. <i>discoidea</i>		
<b>ARACEAE</b>		
<i>Symplocarpus nipponicus</i>		
<b>IRIDACEAE</b>		
<i>Iris pseudacorus</i>		

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\*\*\*\* Endemic based on Satake et al. (1982; 1989) and Iwatsuki (1992), listed as "endemic to Japan" or "limited to Japan"

Scientific name	MoE RL ***	Endemic to Japan ****
<b>ORCHIDACEAE</b>		
<i>Amitostigma kinoshitae</i>	VU	
<i>Dactyloctenium aegyptium</i>		
<i>Neottia asiatica</i>	VU	
<i>Neottia japonica</i>		
<i>Pogonia japonica</i>	VU	
<b>LEMNACEAE</b>		
<i>Spirodela polyrhiza</i>		

## References

- Iwatsuki, K. (1992) Ferns and Fern Allies of Japan. HEIBONSHA Ltd., Publishers, Tokyo (in Japanese).
- Sato, K., Nishikawa, T., Sakai, S., Matsui, K., Kohyama, T., Koike, F., Kobayashi, M. and Ito, K. (1985) Flora of Vascular Plants of the Onnebetsudake Wilderness area and Shiretoko Peninsula. In: Conservation Reports of the Onnebetsu-dake Wilderness Area, Hokkaido, Japan, pp.115-172. Nature Conservation Bureau, Environment Agency, Japan (in Japanese with English summary).
- Satake, Y., Hara, H., Watari, A. and Tominari, T. (1989) Wild Flowers of Japan, Wood Plants. HEIBONSHA Ltd., Publishers, Tokyo (in Japanese).
- Satake, Y., Ohwi, J., Kitamura, S., Watari, A. and Tominari, T. (1982) WildFlowers of Japan. HEIBONSHA Ltd., Publishers, Tokyo(in Japanese).

# The Seaweeds of Shiretoko Peninsula and its Coastal Area

From Kurogi *et al.* (1985) and Yamada and Tanaka (1944)

\*\*\*\* Data Book Categories of Japanese Fisheries Agency, details are given on the last page

Scientific name	FA DB****
<b>CHLOROPHYCEAE</b>	
<b>CHLOROCOCCALES</b>	
<b>Endosphaeraceae</b>	
<i>Chlorochytrium inclusum</i>	
<i>Codiolum gregarium</i>	
<b>ULOTRICHALES</b>	
<b>Ulotrichaceae</b>	
<i>Ulothrix flacca</i>	
<i>Ulothrix implexa</i>	
<i>Ulothrix flexuosa</i>	
<b>ULVALES</b>	
<b>Capsosiphonaceae</b>	
<i>Capsosiphon groenlandicus</i>	R
<b>Kornmanniaceae</b>	
<i>Kornmannia leptoderma</i>	
<b>Monostromataceae</b>	
<i>Monostroma angicava</i>	
<i>Monostroma crassidermum</i>	
<i>Protomonostroma undulatum</i>	
<b>Ulvaceae</b>	
<i>Blidingia minima</i>	
<i>Enteromorpha compressa</i>	
<i>Enteromorpha intestinalis</i>	
<i>Enteromorpha linza</i>	
<i>Ulva pertusa</i>	
<i>Ulvaria fusca</i>	
<b>CLADOPHORALES</b>	
<b>Cladophoraceae</b>	
<i>Chaetomorpha aerea</i>	
<i>Chaetomorpha moniligera</i>	
<i>Cladophora arenaria</i>	
<i>Cladophora opaca</i>	
<i>Cladophora stimpsonii</i>	
<i>Rhizoclonium tortuosum</i>	
<i>Rhizoclonium lubricum</i>	
<b>ACROSIPHONIALES</b>	
<b>Acrosiphoniaceae</b>	
<i>Spongomorpha heterocladia</i>	
<i>Spongomorpha duriuscula</i> var. <i>cartilaginea</i>	
<i>Urospora penicilliformis</i>	
<i>Urospora wormskioldii</i>	
<b>CODIALES</b>	
<b>Codiaceae</b>	
<i>Codium yezoense</i>	
<b>BRYOPSISDALES</b>	
<b>Derbesiaceae</b>	
<i>Derbesia marina</i>	
<b>PHAEOPHYCEAE</b>	
<b>ECTOCARPALES</b>	
<b>Pilayellaceae</b>	
<i>Pilayella littoralis</i>	
<b>RALFSIALES</b>	
<b>Ralfsiaceae</b>	
<i>Analipus filiformis</i>	
<i>Analipus japonicus</i>	
<i>Ralfsia fungiformis</i>	

\*\*\*\* Data Book Categories of Japanese Fisheries Agency, details are given on the last page

Scientific name	FA DB****
<b>SPHACELARIALES</b>	
<b>Sphacelariaceae</b>	
<i>Sphacelaria rigidula</i>	
<b>DICTYOTALES</b>	
<b>Dictyotaceae</b>	
<i>Dictyopterus divaricata</i>	
<i>Dictyota dichotoma</i>	
<b>CHORDARIALES</b>	
<b>Acrotrichaceae</b>	
<i>Acrotrix pacifica</i>	
<b>Chordariaceae</b>	
<i>Chordaria flagelliformis</i>	
<i>Saundersella simplex</i>	
<i>Sphaerotrichia divaricata</i>	
<b>Elachistaceae</b>	
<i>Halothrix ambigua</i>	
<b>Leathesiaceae</b>	
<i>Leathesia difformis</i>	
<i>Leathesia sphaerocephala</i>	
<b>DICTYOSIPHONALES</b>	
<b>Coilodesmaceae</b>	
<i>Akkesiphycus lubricum</i>	R
<i>Coilodesme cystoseirae</i>	
<i>Coilodesme japonica</i>	
<b>Dictyosiphonaceae</b>	
<i>Dictyosiphon chordaria</i>	
<i>Dictyosiphon foeniculaceus</i>	
<b>Punctariaceae</b>	
<i>Punctaria latifolia</i>	
<b>SCYTOSIPHONALES</b>	
<b>Scytosiphonaceae</b>	
<i>Colpomenia bullosa</i>	
<i>Colpomenia sinuosa</i>	
<i>Petalonia binghamiae</i>	
<i>Petalonia fascia</i>	
<i>Scytosiphon lomentaria</i>	
<b>DESMARESTIALES</b>	
<b>Desmarestiaceae</b>	
<i>Desmarestia ligulata</i>	
<i>Desmarestia viridis</i>	
<b>LAMINARIALES</b>	
<b>Alariaceae</b>	
<i>Alaria angusta</i>	
<b>Chordaceae</b>	
<i>Chorda filum</i>	
<b>Laminariaceae</b>	
<i>Agarum clathratum</i>	
<i>Costaria costata</i>	
<i>Cymathaere japonica</i>	R
<i>Laminaria diabolica</i>	
<i>Laminaria ochotensis</i>	
<i>Laminaria sachalinensis</i>	
<b>FUCALES</b>	
<b>Fucaceae</b>	
<i>Fucus distichus</i> subsp. <i>evanescens</i>	
<i>Silvetia babingtonii</i>	
<b>Sargassaceae</b>	
<i>Cystoseira crassipes</i>	
<i>Cystoseira hakodatensis</i>	
<i>Sargassum confusum</i>	
<i>Sargassum miyabei</i>	
<i>Sargassum thunbergii</i>	

\*\*\*\* Data Book Categories of Japanese Fisheries Agency, details are given on the last page

Scientific name	FA DB****
<b>RHODOPHYCEAE</b>	
<b>GONIOTRICHALES</b>	
<b>Goniotrichaceae</b>	
<i>Stylonema alsidii</i>	
<b>ERYTHROPELTIDALES</b>	
<b>Erythropeltidaceae</b>	
<i>Erythrotrichia carnea</i>	
<b>BANGIALES</b>	
<b>Bangiaceae</b>	
<i>Porphyra crassa</i>	
<i>Porphyra kurogii</i>	
<i>Porphyra occidentalis</i>	
<i>Porphyra ochotensis</i>	
<i>Porphyra onoi</i>	
<i>Porphyra pseudocrassa</i>	
<i>Porphyra pseudolinearis</i>	
<i>Porphyra variegata</i>	
<b>PALMARIALES</b>	
<b>Palmariaceae</b>	
<i>Halosaccion firmum</i>	
<i>Halosaccion yendoi</i>	
<i>Palmaria palmata</i>	
<b>Rhodophysemataceae</b>	
<i>Rhodophysema georgii</i>	
<b>CORALLINALES</b>	
<b>Corallinaceae</b>	
<i>Bossiella cretacea</i>	
<i>Clathromorphum reclinatum</i>	
<i>Corallina pilulifera</i>	
<b>GIGARTINALES</b>	
<b>Dumontiaceae</b>	
<i>Dumontia contorta</i>	
<i>Masudaphycus irregulare</i>	
<i>Neodilsea crispa</i>	
<i>Neodilsea yendoana</i>	
<b>Endocladaceae</b>	
<i>Gloiopeltis furcata</i>	
<b>Gigartinaceae</b>	
<i>Chondrus ocellatus</i>	
<i>Chondrus pinnulatus</i>	
<i>Chondrus yendoi</i>	
<i>Mazzaella japonica</i>	
<b>Halymeniaceae</b>	
<i>Grateloupia divaricata</i>	
<b>Kallymeniaceae</b>	
<i>Callophyllis cristata</i>	
<i>Callophyllis rhynchocarpa</i>	
<b>Petrocelidaceae</b>	
<i>Mastocarpus pacificus</i>	
<b>Rhodophyllidaceae</b>	
<i>Rhodophyllis capillaris</i>	
<b>Tichocarpaceae</b>	
<i>Tichocarpus crinitus</i>	
<b>GRACILARIALES</b>	
<b>Gracilariaceae</b>	
<i>Gracilaria vermiculophylla</i>	
<b>RHODYMENIALES</b>	
<b>Champiaceae</b>	
<i>Lomentaria hakodatensis</i>	
<b>Rhodymeniaceae</b>	
<i>Sparlingia pertusa</i>	



\*\*\*\* Data Book Categories of Japanese Fisheries Agency, details are given on the last page

Scientific name	FA DB****
<b>CERAMIALES</b>	
<b>Ceramiaceae</b>	
<i>Antithamnion densum</i>	
<i>Antithamnion crassa</i>	
<i>Antithamnion hypnaeoides</i>	
<i>Ceramium cimbricum</i>	
<i>Ceramium kondoi</i>	
<i>Ptilota filicina</i>	
<i>Ptilota phacelocarpoides</i>	
<i>Tokidaea corticata</i>	
<b>Delesseriaceae</b>	
<i>Acrosorium yendoi</i>	
<i>Branchioglossum nanum</i>	
<i>Congregatocarpus pacificus</i>	
<i>Hideophyllum yezoense</i>	
<i>Neoholmesia japonica</i>	
<i>Neohypophyllum middendorffii</i>	
<i>Tokidadendron kurilensis</i>	
<b>Rhodomelaceae</b>	
<i>Chondria dasyphylla</i>	
<i>Enelittosiphonia stimpsonii</i>	
<i>Janczewskia morimotoi</i>	
<i>Laurencia nipponica</i>	
<i>Neorhodomela aculeata</i>	
<i>Neorhodomela munita</i>	
<i>Neosiphonia japonica</i>	
<i>Odonthalia annae</i>	
<i>Odonthalia corymbifera</i>	
<i>Polysiphonia morrowii</i>	
<i>Polysiphonia senticulosa</i>	
<i>Pterosiphonia bipinnata</i>	
<i>Rhodomela teres</i>	
<i>Symphyocladia latiuscula</i>	
<i>Symphyocladia marchantioides</i>	

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- Yamada, Y. and Tanaka, T. (1944) Report on Seaweeds of Kitami Coastal Area of Shiretoko Peninsula. Hokusuisi Monthly Report 1 (3): 165-171 (in Japanese).

# Cold Current/Warm Current Species of Seaweed

Based on Kurogi *et al.* (1985)

## Cold Current Species

Scientific name
<b>CHLOROPHYCEAE</b>
<b>ULVALES</b>
<b>Capsosiphonaceae</b>
<i>Capsosiphon groenlandicus</i>
<b>Monostromataceae</b>
<i>Monostroma crassiderrum</i>
<b>Ulvaceae</b>
<i>Ulvaria fusca</i>
<b>CLADOPHORALES</b>
<b>Cladophoraceae</b>
<i>Rhizoclonium tortuosum</i>
<b>ACROSIPHONIALES</b>
<b>Acrosiphoniaceae</b>
<i>Spongomorpha heterocladia</i>
<i>Spongomorpha duriuscula</i> var. <i>cartilaginea</i>
<i>Urospora wormskioldii</i>
<b>PHAEOPHYCEAE</b>
<b>RALFSIALES</b>
<b>Ralfsiaceae</b>
<i>Analipus filiformis</i>
<b>CHORDARIALES</b>
<b>Chordariaceae</b>
<i>Chordaria flagelliformis</i>
<i>Saundersella simplex</i>
<b>DICTYOSIPHONALES</b>
<b>Coilodesmaceae</b>
<i>Akkesiphycus lubricum</i>
<i>Coilodesme cystoseirae</i>
<b>LAMINARIALES</b>
<b>Alariaceae</b>
<i>Alaria angusta</i>
<b>Laminariaceae</b>
<i>Cymathaere japonica</i>
<i>Laminaria diabolica</i>
<i>Laminaria sachalinensis</i>
<b>FUCALES</b>
<b>Fucaceae</b>
<i>Fucus distichus</i> subsp. <i>evanescens</i>
<b>Sargassaceae</b>
<i>Cystoseira crassipes</i>
<b>RHODOPHYCEAE</b>
<b>BANGIALES</b>
<b>Bangiaceae</b>
<i>Porphyra kurogii</i>
<i>Porphyra occidentalis</i>
<b>PALMARIALES</b>
<b>Palmariaceae</b>
<i>Halosaccion firmum</i>
<i>Halosaccion yendoi</i>
<b>GIGARTINALES</b>
<b>Dumontiaceae</b>
<i>Masudaphycus irregulare</i>
<b>Kallymeniaceae</b>
<i>Callophyllis cristata</i>
<i>Callophyllis rhynchocarpa</i>
<b>Rhodophyllidaceae</b>
<i>Rhodophyllis capillaris</i>
<b>CERAMIALES</b>
<b>Rhodomelaceae</b>
<i>Odonthalia annae</i>
<i>Odonthalia corymbifera</i>
<i>Pterosiphonia bipinnata</i>

## Warm Current Species

Scientific name
<b>CHLOROPHYCEAE</b>
<b>CLADOPHORALES</b>
<b>Cladophoraceae</b>
<i>Chaetomorpha aerea</i>
<b>BRYOPSIDALES</b>
<b>Derbesiaceae</b>
<i>Derbesia marina</i>
<b>PHAEOPHYCEAE</b>
<b>DICTYOTALES</b>
<b>Dictyotaceae</b>
<i>Dictyopteris divaricata</i>
<i>Dictyota dichotoma</i>
<b>CHORDARIALES</b>
<b>Acrotrichaceae</b>
<i>Acrotrix pacifica</i>
<b>Chordariaceae</b>
<i>Sphaerotrichia divaricata</i>
<b>SCYTOSIPHONALES</b>
<b>Scytosiphonaceae</b>
<i>Colpomenia bullosa</i>
<i>Petalonia binghamiae</i>
<b>LAMINARIALES</b>
<b>Laminariaceae</b>
<i>Agarum clathratum</i>
<i>Laminaria ochotensis</i>
<b>FUCALES</b>
<b>Sargassaceae</b>
<i>Cystoseira hakodatensis</i>
<i>Sargassum confusum</i>
<i>Sargassum miyabei</i>
<i>Sargassum thumbergii</i>
<b>RHODOPHYCEAE</b>
<b>BANGIALES</b>
<b>Bangiaceae</b>
<i>Porphyra onoi</i>
<b>GIGARTINALES</b>
<b>Halymeniaceae</b>
<i>Grateloupia divaricata</i>
<b>RHODYMENIALES</b>
<b>Champiaceae</b>
<i>Lomentaria hakodatensis</i>
<b>CERAMIALES</b>
<b>Ceramiaceae</b>
<i>Antithamnion crassa</i>
<i>Antithamnion hypnaeoides</i>
<i>Ceramium kondoii</i>
<b>Delesseriaceae</b>
<i>Acrosorium yendoii</i>
<i>Branchioglossum nanum</i>
<i>Hideophyllum yezoense</i>
<i>Neoholmesia japonica</i>
<b>Rhodomelaceae</b>
<i>Chondria dasyphylla</i>
<i>Enelittosiphonia stimpsonii</i>
<i>Laurencia nipponica</i>
<i>Neorhodomela munita</i>
<i>Polysiphonia morrowii</i>
<i>Polysiphonia senticulosa</i>
<i>Symphyocladia latiuscula</i>
<i>Symphyocladia marchantioides</i>

## References

- Kurogi, M., Yamada, I. and Masuda, M. (1985) Marine flora and its vegetation of Rausu Coastal Area on the East Side of Shiretoko Peninsula. In: Comprehensive Report on the Kelp in Rausu Sea Area, pp.1-82. Rausu Fishermen's Cooperative, Rausu town, Menashi-gun, Hokkaido (in Japanese)

## The Mammals of Shiretoko Peninsula and its Coastal Area

Terrestrial mammals are from Shiretoko Museum (2000), Marine mammals are from Ito (1970), Kawamura (1981), Ohtaishi & Saito (1981), Ohtaishi and Nakagawa (1988), Sato (1998), Ishinazaka and Uni (2000), and revised with comments by Ohtaishi (September 17, 2003).

Endemic based on Abe *et al.* (1994)

\*\* Red List categories of IUCN, details are given on the last page

\*\*\* Red List Categories of Japanese Ministry of the Environment, details are given on the last page

\*\*\*\* Data Book Categories of Japanese Fisheries Agency, details are given on the last page

Scientific name	IUCN RL **	MoE RL ***	FA DB ****	Endemic to Japan
<b>INSECTIVORA</b>				
<b>Soricidae</b>				
<i>Sorex minutissimus hawkeri</i>		VU		
<i>Sorex gracillimus</i>				
<i>Sorex caecutiens saevus</i>				
<i>Sorex unguiculatus</i>				
<b>CHIROPTERA</b>				
<b>Vespertilionidae</b>				
<i>Myotis mystacinus</i>		VU		
<i>Myotis ikonnikovi</i>	EN	EN		
<i>Myotis macrodactylus</i>				
<i>Myotis daubentonii</i>		VU		
<i>Myotis frater</i>	LR/nt	VU		
<i>Eptesicus nilssonii</i>	EN	EN		
<i>Plecotus auritus</i>		VU		
<i>Barbastella leucomelas</i>		VU		
<i>Murina ussuriensis</i>		VU		
<b>LAGOMORPHA</b>				
<b>Leporidae</b>				
<i>Lepus timidus ainu</i>				
<b>RODENTIA</b>				
<b>Sciuridae</b>				
<i>Sciurus vulgaris orientis</i>	NT			
<i>Tamias sibiricus lineatus</i>				
<i>Pteromys volans orii</i>				
<b>Muridae</b>				
<i>Clethrionomys rutilus mikado</i>				
<i>Clethrionomys rufocanus bedfordiae</i>				
<i>Apodemus argenteus</i>				
<i>Apodemus peninsulae giliacus</i>				
<i>Apodemus speciosus</i>				
<i>Mus musculus</i>				
<i>Rattus rattus</i>				
<i>Rattus norvegicus</i>				
<b>CARNIVORA</b>				
<b>Canidae</b>				
<i>Vulpes vulpes schrencki</i>				
<i>Nyctereutes procyonoides albus</i>				
<b>Ursidae</b>				
<i>Ursus arctos</i>				
<b>Procyonidae</b>				
<i>Procyon lotor</i>				
<b>Mustelidae</b>				
<i>Mustela erminea orientalis</i>		NT		
<i>Mustela nivalis nivalis</i>				
<i>Mustela itatsi</i>				
<i>Mustela vison</i>				
<i>Martes zibellina brachura</i>				
<b>Otariidae</b>				
<i>Callorhinus ursinus</i>	VU		D	
<i>Eumetopias jubatus</i>	EN	VU	R	

\*\* Red List categories of IUCN, details are given on the last page

\*\*\* Red List Categories of Japanese Ministry of the Environment, details are given on the last page

\*\*\*\* Data Book Categories of Japanese Fisheries Agency, details are given on the last page

Scientific name	IUCN RL **	MoE RL ***	FA DB ****	Endemic to Japan
<b>Phocidae</b>				
<i>Phoca largha</i>			TD	
<i>Phoca vitulina</i>		EN	VU	
<i>Phoca hispida</i>			DT	
<i>Phoca fasciata</i>			TD	
<i>Erignathus barbatus</i>			D	
<b>ARTIODACTYLA</b>				
<b>Cervidae</b>				
<i>Cervus nippon yesoensis</i>				
<b>CETACEA</b>				
<b>Eschrichtiidae</b>				
<i>Eschrichtius robustus</i>	CR		EN	
<b>Balaenopteridae</b>				
<i>Balaenoptera acutorostrata</i>	LR/nt		TD	
<i>Megaptera novaeangliae</i>	VU		R	
<i>Balaenoptera borealis</i>	EN		D	
<b>Ziphiidae</b>				
<i>Ziphius cavirostris</i>			R	
<i>Berardius bairdii</i>	LR/cd		D	
<i>Mesoplodon stejnegeri</i>			R	
<i>Mesoplodon carlhubbsi</i>			R	
<i>Mesoplodon ginkgodens</i>			R	
<b>Delphinidae</b>				
<i>Lagenorhynchus obliquidens</i>			TD	
<i>Orcinus orca</i>	LR/cd		R	
<i>Stenella coeruleoalba</i>	LR/cd		D	
<i>Lissodelphis borealis</i>				
<i>Tursiops truncatus</i>			TD	
<i>Delphinus delphis</i>			TD	
<i>Pseudorca crassidens</i>			DT	
<i>Globicephala melas</i>				
<i>Globicephala macrorhynchus</i>	LR/cd		D	
<b>Phocoenidae</b>				
<i>Phocoena phocoena</i>	VU		R	
<i>Phocoenoides dalli</i>	LR/cd		TD	
<b>Physeteridae</b>				
<i>Physeter macrocephalus</i>	VU		TD	

## References

- Abe, H., Ishii, N., Kaneko, K., Maeda, K., Miura, S. and Yoneda, M. (1994) A Pictorial Guide to the Mammals of Japan. Tokai University Press, Tokyo (in Japanese).
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- Ito, T. (1970) Survey of the Pinnipeds in Hokkaido. Mammalian Science 19: 67-68(in Japanese).
- Kawamura, A. (1981) Distribution of Whales on Okhotsk Sea Coast of Hokkaido. In: Report of the Survey on Vertebrate Communities in Shiretoko Peninsula, Hokkaido, Japan, pp. 182-188. Natural Conservation Division, Department of Lifestyle and Environment, Hokkaido (in Japanese).
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- Ohtaishi, N. and Nakagawa, H. (1988) Animals of Shiretoko. Hokkaido University Press, Sapporo (in Japanese with English summary).
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- Shiretoko Museum (2000) Mammals of Shiretoko I. Shari town and Shari town Board of Education (in Japanese).

# The Birds of Shiretoko Peninsula and its Coastal

From Nagata (1956), Japanese Society for Preservation of Birds (2001) and Shiretoko Museum (unpublished)  
Endemic birds based on Wild Birds Society of Japan (1982)

\*\* Red List categories of IUCN, details are given on the last page

\*\*\* Red List Categories of Japanese Ministry of the Environment, details are given on the last page

\*\*\*\* Data Book Categories of Japanese Fisheries Agency, details are given on the last page

Scientific name	IUCN RL **	MoE RL ***	FA DB ****	Endemic to Japan
<b>GAVIIFORMES</b>				
<b>Gaviidae</b>				
<i>Gavia stellata</i>				
<i>Gavia arctica</i>				
<i>Gavia pacifica</i>				
<i>Gavia adamsii</i>				
<b>PODICIPEDIFORMES</b>				
<b>Podicipedidae</b>				
<i>Tachybaptus ruficollis</i>				
<i>Podiceps nigricollis</i>				
<i>Podiceps auritus</i>				
<i>Podiceps grisegena</i>				
<i>Podiceps cristatus</i>				
<b>PROCELLARIIFORMES</b>				
<b>Procellariidae</b>				
<i>Fulmarus glacialis</i>				
<i>Puffinus carneipes</i>				
<i>Puffinus griseus</i>				
<i>Puffinus tenuirostris</i>				
<b>Hydrobatidae</b>				
<i>Oceanodroma furcata</i>				
<i>Oceanodroma leucorhoa</i>				
<b>PELECANIFORMES</b>				
<b>Phalacrocoracidae</b>				
<i>Phalacrocorax capillatus</i>				
<i>Phalacrocorax pelagicus</i>				
<i>Phalacrocorax urile</i>		CR	EN	
<b>CICONIIFORMES</b>				
<b>Ardeidae</b>				
<i>Gorsachius goisagi</i>	EN	NT		
<i>Ardeola bacchus</i>				
<i>Bubulcus ibis</i>				
<i>Egretta intermedia</i>		NT	R	
<i>Egretta garzetta</i>				
<i>Ardea cinerea</i>				
<b>ANSERIFORMES</b>				
<b>Anatidae</b>				
<i>Branta bernicla</i>		VU	R	
<i>Anser albifrons</i>		NT		
<i>Anser fabalis</i>		VU		
<i>Cygnus olor</i>				
<i>Cygnus cygnus</i>				
<i>Cygnus columbianus</i>				
<i>Aix galericulata</i>				
<i>Anas platyrhynchos</i>				
<i>Anas poecilorhyncha</i>				
<i>Anas crecca</i>				
<i>Anas formosa</i>	VU	VU		
<i>Anas falcata</i>				
<i>Anas strepera</i>				
<i>Anas penelope</i>				
<i>Anas acuta</i>				
<i>Anas clypeata</i>				
<i>Aythya ferina</i>				

\*\* Red List categories of IUCN, details are given on the last page

\*\*\* Red List Categories of Japanese Ministry of the Environment, details are given on the last page

\*\*\*\* Data Book Categories of Japanese Fisheries Agency, details are given on the last page

Scientific name	IUCN RL **	MoE RL ***	FA DB ****	Endemic to Japan
<i>Aythya collaris</i>				
<i>Aythya fuligula</i>				
<i>Aythya marila</i>				
<i>Melanitta nigra</i>				
<i>Melanitta fusca</i>				
<i>Histrionicus histrionicus</i>				
<i>Clangula hyemalis</i>				
<i>Bucephala clangula</i>				
<i>Mergus albellus</i>				
<i>Mergus serrator</i>				
<i>Mergus merganser</i>				
<b>FALCONIFORMES</b>				
<b>Accipitridae</b>				
<i>Pandion haliaetus</i>		NT		
<i>Milvus migrans</i>				
<i>Haliaeetus albicilla</i>	LR/nt	EN		
<i>Haliaeetus pelagicus</i>	VU	VU		
<i>Accipiter gentilis</i>		VU		
<i>Accipiter gularis</i>				
<i>Accipiter nisus</i>		NT		
<i>Buteo lagopus</i>				
<i>Buteo buteo</i>				
<i>Spizaetus nipalensis</i>		EN		
<i>Aquila clanga</i>				
<i>Aquila chrysaetos</i>		EN		
<i>Circus cyaneus</i>				
<i>Circus spilonotus</i>		VU		
<b>Falconidae</b>				
<i>Falco rusticolus</i>				
<i>Falco peregrinus</i>		VU		
<i>Falco subbuteo</i>				
<i>Falco columbarius</i>				
<i>Falco tinnunculus</i>				
<b>GALLIFORMES</b>				
<b>Tetraonidae</b>				
<i>Tetrastes bonasia</i>				
<b>Phasianidae</b>				
<i>Coturnix japonica</i>				
<i>Phasianus colchicus</i>				
<b>GRUIFORMES</b>				
<b>Gruidae</b>				
<i>Grus japonensis</i>	EN	VU		
<b>Rallidae</b>				
<i>Rallus aquaticus</i>				
<i>Porzana pusilla</i>				
<i>Gallinula chloropus</i>				
<i>Gallinula cinerea</i>				
<i>Fulica atra</i>				
<b>CHARADRIIFORMES</b>				
<b>Charadriidae</b>				
<i>Charadrius dubius</i>				
<i>Charadrius placidus</i>				
<i>Charadrius alexandrinus</i>				
<i>Charadrius mongolus</i>				
<i>Pluvialis fulva</i>				
<i>Pluvialis squatarola</i>				
<b>Scolopacidae</b>				
<i>Arenaria interpres</i>				

\*\* Red List categories of IUCN, details are given on the last page

\*\*\* Red List Categories of Japanese Ministry of the Environment, details are given on the last page

\*\*\*\* Data Book Categories of Japanese Fisheries Agency, details are given on the last page

Scientific name	IUCN RL **	MoE RL ***	FA DB ****	Endemic to Japan
<i>Calidris ruficollis</i>				
<i>Calidris subminuta</i>				
<i>Calidris alpina</i>				
<i>Calidris tenuirostris</i>				
<i>Crocethia alba</i>				
<i>Limicola falcinellus</i>				
<i>Tringa erythropus</i>				
<i>Tringa nebularia</i>				
<i>Tringa glareola</i>				
<i>Heteroscelus brevipes</i>				
<i>Actitis hypoleucos</i>				
<i>Numenius phaeopus</i>				
<i>Scolopax rusticola</i>				
<i>Gallinago gallinago</i>				
<i>Gallinago stenura</i>				
<i>Gallinago megala</i>				
<i>Gallinago hardwickii</i>		NT		
<i>Gallinago solitaria</i>				
<b>Recurvirostridae</b>				
<i>Himantopus himantopus</i>		EN	R	
<b>Phalaropodidae</b>				
<i>Phalaropus fulicarius</i>				
<i>Phalaropus lobatus</i>				
<b>Stercorariidae</b>				
<i>Stercorarius pomarinus</i>				
<i>Stercorarius parasiticus</i>				
<i>Stercorarius longicaudus</i>				
<b>Laridae</b>				
<i>Larus ridibundus</i>				
<i>Larus heuglini</i>				
<i>Larus argentatus</i>				
<i>Larus schistisagus</i>				
<i>Larus glaucescens</i>				
<i>Larus hyperboreus</i>				
<i>Larus glaucoides</i>				
<i>Larus canus</i>				
<i>Larus crassirostris</i>				
<i>Rissa tridactyla</i>				
<i>Rhodostethia rosea</i>				
<i>Pagophila eburnea</i>				
<i>Chlidonias leucopterus</i>				
<i>Sterna hirundo</i>				
<b>Alcidae</b>				
<i>Uria aalge</i>		CR	EN	
<i>Uria lomvia</i>				
<i>Cepphus columba</i>				
<i>Cepphus carbo</i>		VU	EN	
<i>Brachyramphus marmoratus</i>			R	
<i>Synthliboramphus antiquus</i>		CR	EN	
<i>Aethia cristatella</i>				
<i>Aethia pusilla</i>				
<i>Aethia psittacula</i>				
<i>Cerorhinca monocerata</i>				
<i>Fratercula corniculata</i>				
<i>Lunda cirrhata</i>		CR	EN	
<b>COLUMBIFORMES</b>				
<b>Columbidae</b>				
<i>Streptopelia orientalis</i>				

\*\* Red List categories of IUCN, details are given on the last page

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Scientific name	IUCN RL **	MoE RL ***	FA DB ****	Endemic to Japan
<i>Sphenurus sieboldii</i>				
<b>CUCULIFORMES</b>				
<b>Cuculidae</b>				
<i>Cuculus fugax</i>				
<i>Cuculus canorus</i>				
<i>Cuculus saturatus</i>				
<i>Cuculus poliocephalus</i>				
<b>STRIGIFORMES</b>				
<b>Strigidae</b>				
<i>Nyctea scandiaca</i>				
<i>Bubo bubo</i>		CR		
<i>Ketupa blakistoni</i>	EN	CR		
<i>Asio otus</i>				
<i>Asio flammeus</i>				
<i>Otus scops</i>				
<i>Otus lempiji</i>				
<i>Aegolius funereus</i>		EN		
<i>Ninox scutulata</i>				
<i>Strix uralensis</i>				
<b>CAPRIMULGIFORMES</b>				
<b>Caprimulgidae</b>				
<i>Caprimulgus indicus</i>				
<b>APODIFORMES</b>				
<b>Apodidae</b>				
<i>Hirundapus caudacutus</i>				
<i>Apus pacificus</i>				
<b>CORACIIFORMES</b>				
<b>Alcedinidae</b>				
<i>Ceryle lugubris</i>				
<i>Halcyon coromanda</i>				
<i>Alcedo atthis</i>				
<b>Upupidae</b>				
<i>Upupa epops</i>				
<b>PICIFORMES</b>				
<b>Picidae</b>				
<i>Jynx torquilla</i>				
<i>Picus canus</i>				
<i>Dryocopus martius</i>		VU		
<i>Dendrocopos major</i>				
<i>Dendrocopos leucotos</i>				
<i>Dendrocopos minor</i>				
<i>Dendrocopos kizuki</i>				
<b>PASSERIFORMES</b>				
<b>Alaudidae</b>				
<i>Alauda arvensis</i>				
<b>Hirundinidae</b>				
<i>Riparia riparia</i>				
<i>Hirundo rustica</i>				
<i>Hirundo daurica</i>				
<i>Delichon urbica</i>				
<b>Motacillidae</b>				
<i>Motacilla flava</i>				
<i>Motacilla cinerea</i>				
<i>Motacilla alba</i>				
<i>Motacilla grandis</i>				
<i>Anthus hodgsoni</i>				
<i>Anthus spinoletta</i>				



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Scientific name	IUCN RL **	MoE RL ***	FA DB ****	Endemic to Japan
<b>Pycnonotidae</b>				
<i>Hypsipetes amaurotis</i>				
<b>Laniidae</b>				
<i>Lanius bucephalus</i>				
<i>Lanius cristatus</i>		NT		
<i>Lanius excubitor</i>				
<b>Bombycillidae</b>				
<i>Bombycilla garrulus</i>				
<i>Bombycilla japonica</i>	LR/nt			
<b>Cinclidae</b>				
<i>Cinclus pallasii</i>				
<b>Troglodytidae</b>				
<i>Troglodytes troglodytes</i>				
<b>Prunellidae</b>				
<i>Prunella collaris</i>				
<i>Prunella rubida</i>				
<b>Turdidae</b>				
<i>Erithacus akahige</i>				
<i>Luscinia calliope</i>				
<i>Luscinia cyane</i>				
<i>Tarsiger cyanurus</i>				
<i>Phoenicurus ochruros</i>				
<i>Phoenicurus aureus</i>				
<i>Saxicola torquata</i>				
<i>Monticola solitarius</i>				
<i>Zoothera dauma</i>				
<i>Turdus sibiricus</i>				
<i>Turdus cardis</i>				
<i>Turdus chrysolaus</i>				
<i>Turdus pallidus</i>				
<i>Turdus obscurus</i>				
<i>Turdus naumanni</i>				
<i>Turdus pilaris</i>				
<b>Sylviidae</b>				
<i>Urosphena squameiceps</i>				
<i>Cettia diphone</i>				
<i>Locustella fasciolata</i>				
<i>Locustella ochotensis</i>				
<i>Locustella lanceolata</i>				
<i>Acrocephalus bistrigiceps</i>				
<i>Acrocephalus arundinaceus</i>				
<i>Phylloscopus borealis</i>				
<i>Phylloscopus borealoides</i>				
<i>Phylloscopus coronatus</i>				
<i>Regulus regulus</i>				
<b>Muscicapidae</b>				
<i>Ficedula narcissina</i>				
<i>Cyanoptila cyanomelana</i>				
<i>Muscicapa sibirica</i>				
<i>Muscicapa griseisticta</i>				
<i>Muscicapa dauurica</i>				
<b>Aegithalidae</b>				
<i>Aegithalos caudatus</i>				
<b>Paridae</b>				
<i>Parus palustris</i>				
<i>Parus montanus</i>				
<i>Parus ater</i>				
<i>Parus varius</i>				

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Scientific name	IUCN RL **	MoE RL ***	FA DB ****	Endemic to Japan
<i>Parus major</i>				
<b>Sittidae</b>				
<i>Sitta europaea</i>				
<b>Certhiidae</b>				
<i>Certhia familiaris</i>				
<b>Zosteropidae</b>				
<i>Zosterops japonicus</i>				
<b>Emberizidae</b>				
<i>Emberiza leucocephalos</i>				
<i>Emberiza cioides</i>				
<i>Emberiza fucata</i>				
<i>Emberiza rustica</i>				
<i>Emberiza elegans</i>				
<i>Emberiza aureola</i>		NT		
<i>Emberiza sulphurata</i>	VU	NT		
<i>Emberiza spodocephala</i>				
<i>Emberiza variabilis</i>				
<i>Emberiza schoeniclus</i>				
<i>Calcarius lapponicus</i>				
<i>Plectrophenax nivalis</i>				
<b>Fringillidae</b>				
<i>Fringilla montifringilla</i>				
<i>Carduelis sinica</i>				
<i>Carduelis spinus</i>				
<i>Carduelis flammea</i>				
<i>Leucosticte arctoa</i>				
<i>Carpodacus roseus</i>				
<i>Pinicola enucleator</i>				
<i>Loxia curvirostra</i>				
<i>Loxia leucoptera</i>				
<i>Uragus sibiricus</i>				
<i>Pyrrhula pyrrhula</i>				
<i>Eophona personata</i>				
<i>Coccothraustes coccothraustes</i>				
<b>Ploceidae</b>				
<i>Passer rutilans</i>				
<i>Passer montanus</i>				
<b>Sturnidae</b>				
<i>Sturnus philippensis</i>				
<i>Sturnus cineraceus</i>				
<b>Corvidae</b>				
<i>Garrulus glandarius</i>				
<i>Pica pica</i>				
<i>Nucifraga caryocatactes</i>				
<i>Corvus corone</i>				
<i>Corvus macrorhynchos</i>				
<i>Corvus corax</i>				

## References

- Japanese Society for Preservation of Birds-Kushiro chapter (2001) 2000 Report on the Shiretoko National Wildlife Protection Area. Nature Conservation Bureau, Ministry of the Environment (in Japanese).
- Nagata, Y. (1956) Shiretoko Peninsula (1). Wild Birds 21: 220-225 (in Japanese).
- Nagata, Y. (1956) Shiretoko Peninsula (2). Wild Birds 21: 337-342 (in Japanese).
- Nagata, Y. (1956) Shiretoko Peninsula (3). Wild Birds 21: 388-393 (in Japanese).
- Wild Bird Society of Japan (1982) A Field Guide to the Birds of Japan. Wild Bird Society of Japan, Tokyo.

## The Reptiles of Shiretoko Peninsula and its Coastal Area

From the records of Shiretoko Museum, August 2003  
 Endemic based on Uchiyama *et al.* (2002)

\*\*\*\* Data Book Categories of Japanese Fisheries Agency, details are given on the last page

Scientific name	FA DB ****	Endemic to Japan
<b>SQUAMATA</b>		
<b>LACERTILIA</b>		
<b>Lacertidae</b>		
<i>Takydromus tachydromoides</i>		
<b>Scincidae</b>		
<i>Eumeces latiscutatus</i>		
<b>SERPENTES</b>		
<b>Colubridae</b>		
<i>Elaphe climacophora</i>		
<i>Elaphe quadrivirgata</i>		
<i>Elaphe conspicillata</i>		
<b>Viperidae</b>		
<i>Agkistrodon blomhoffii</i>		
<b>TESTUDINATA</b>		
<b>Dermochelyidae</b>		
<i>Dermochelys coriacea</i>	EN	

## The Amphibians of Shiretoko Peninsula

From the records of Shiretoko Museum, August 2003  
 Endemic based on Uchiyama *et al.* (2002)

Scientific name	Endemic to Japan
<b>CAUDATA</b>	
<b>Hynobiidae</b>	
<i>Hynobius retardatus</i>	
<b>SALIENTIA</b>	
<b>Ranidae</b>	
<i>Rana pirica</i>	
<b>Hylidae</b>	
<i>Hyla japonica</i>	

## References

- Uchiyama, R., Maeda, N., Numata, K. and Seki, S. (2002) A Photographic Guide; Amphibians and Reptiles in Japan. HEIBONSHA Ltd., Publishers, Tokyo (in Japanese).

# The Fishes of Shiretoko Peninsula and its Coastal Area

From Shiretoko Museum (2003)

\*\* Red List categories of IUCN, details are given on the last page

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Scientific name	IUCN RL **	MoE RL ***	FA DB ****
<b>PETROMYZONTIFORMES</b>			
<b>Petromyzontidae</b>			
<i>Lethenteron japonicum</i>			
<i>Lethenteron kessleri</i>		NT	R
<b>CHIMAERIFORMES</b>			
<b>Chimaeridae</b>			
<i>Hydrolagus barbouri</i>			
<b>CARCHARHINIFORMES</b>			
<b>Carcharhinidae</b>			
<i>Prionace glauca</i>			TD
<b>LAMNIFORMES</b>			
<b>Lamnidae</b>			
<i>Lamna ditropis</i>			
<b>SQUALIFORMES</b>			
<b>Dalatiidae</b>			
<i>Somniosus pacificus</i>			
<b>Squalidae</b>			
<i>Squalus acanthias</i>			DT
<b>RAJIFORMES</b>			
<b>Rajidae</b>			
<i>Raja pulchra</i>			
<i>Bathyraja diplotaenia</i>			
<i>Bathyraja violacea</i>			
<i>Bathyraja matsubarae</i>			
<i>Bathyraja minispinosa</i>			
<i>Bathyraja aleutica</i>			
<i>Bathyraja smirnovi</i>			
<i>Bathyraja bergi</i>			
<i>Bathyraja lindbergi</i>			
<i>Rhinoraja kujiensis</i>			
<b>Dasyatidae</b>			
<i>Dasyatis matsubarae</i>			
<b>ACIPENSERIFORMES</b>			
<b>Acipenseridae</b>			
<i>Huso dauricus</i>	EN		
<i>Acipenser medirostris</i>	EN		EN
<b>ALBULIFORMES</b>			
<b>Notacanthidae</b>			
<i>Notacanthus chemnitzii</i>			
<b>ANGUILLIFORMES</b>			
<b>Synphobranchidae</b>			
<i>Synphobranchus kaupii</i>			
<b>Congridae</b>			
<i>Conger</i> sp.			
<b>CLUPEIFORMES</b>			
<b>Engraulidae</b>			
<i>Engraulis japonicus</i>			
<b>Clupeidae</b>			
<i>Clupea pallasii</i>			D
<i>Etrumeus teres</i>			
<i>Sardinops melanostictus</i>			

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Scientific name	IUCN RL **	MoE RL ***	FA DB ****
<b>CYPRINIFORMES</b>			
<b>Cyprinidae</b>			
<i>Tribolodon hakonensis</i>			
<i>Tribolodon brandti</i>			
<i>Tribolodon ezoë</i>			
<i>Phoxinus phoxinus sachalinensis</i>		NT	
<i>Carassius auratus langsdorffii</i>			
<i>Cyprinus carpio</i>			
<b>Cobitidae</b>			
<i>Noemacheilus barbatulus toni</i>			
<i>Misgurnus anguillicaudatus</i>			
<b>OSMERIFORMES</b>			
<b>Osmeridae</b>			
<i>Osmerus eperlanus mordax</i>			
<i>Hypomesus japonicus</i>			
<i>Hypomesus nipponensis</i>			
<b>Salangidae</b>			
<i>Salangichthys microdon</i>			
<b>SALMONIFORMES</b>			
<b>Salmonidae</b>			
<i>Hucho perryi</i>		EN	VU
<i>Salvelinus leucomaenis</i>			
<i>Salvelinus malma</i>		NT	D
<i>Oncorhynchus keta</i>			
<i>Oncorhynchus tshawytscha</i>			
<i>Oncorhynchus gorbusha</i>			
<i>Oncorhynchus nerka</i>			
<i>Oncorhynchus masou masou</i>			D
<i>Oncorhynchus kisutch</i>			
<i>Oncorhynchus mykiss</i>			
<i>Salmo trutta</i>			
<i>Salmo salar</i>			
<b>STOMIIFORMES</b>			
<b>Stomiidae</b>			
<i>Chauliodus macouei</i>			
<b>AULOPIFORMES</b>			
<b>Notosudidae</b>			
<i>Scopelosaurus harryi</i>			
<b>Paralepididae</b>			
<i>Paralepis atlantica</i>			
<b>Anopteroideae</b>			
<i>Anopterus nikparini</i>			
<b>Alepisauridae</b>			
<i>Alepisaurus ferox</i>			
<b>MYCTOPHIFORMES</b>			
<b>Myctophidae</b>			
<i>Nannobranchium regale</i>			
<i>Lampanyctus jordani</i>			
<b>LAMPRIDIFORMES</b>			
<b>Trachipteridae</b>			
<i>Trachipterus ishikawae</i>			DT
<b>GADIFORMES</b>			
<b>Macrouridae</b>			
<i>Coryphaenoides pectoralis</i>			
<i>Coryphaenoides acrolepis</i>			
<i>Coryphaenoides cinereus</i>			
<b>Moridae</b>			
<i>Physiculus maximowiczi</i>			
<i>Antimora microlepis</i>			

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Scientific name	IUCN RL **	MoE RL ***	FA DB ****
<i>Laemonema longipes</i>			
<b>Gadidae</b>			
<i>Theragra chalcogramma</i>			
<i>Gadus macrocephalus</i>			
<i>Eleginus gracilis</i>			
<b>LOPHIIFORMES</b>			
<b>Lophiidae</b>			
<i>Lophius litulon</i>			TD
<b>MUGILIFORMES</b>			
<b>Mugilidae</b>			
<i>Mugil cephalus cephalus</i>			
<i>Chelon haematocheilus</i>			
<b>BELONIFORMES</b>			
<b>Scomberesocidae</b>			
<i>Cololabis saira</i>			
<b>Hemiramphidae</b>			
<i>Hyporhamphus sajori</i>			
<b>CYPRINODONTIFORMES</b>			
<b>Poeciliidae</b>			
<i>Poecilia reticulata</i>			
<b>STEPHANOBERYCIFORMES</b>			
<b>Melamphaidae</b>			
<i>Poromitra crassiceps</i>			
<b>Cetomimidae</b>			
<i>Cetomimus compunctus</i>			
<b>ZEIFORMES</b>			
<b>Zeidae</b>			
<i>Zeus faber</i>			
<i>Zenopsis nebulosa</i>			
<b>Oreosomatidae</b>			
<i>Allocyttus verrucosus</i>			
<b>GASTEROSTEIFORMES</b>			
<b>Hypoptychidae</b>			
<i>Hypoptychus dybowskii</i>			
<b>Gasterosteidae</b>			
<i>Gasterosteus aculeatus</i> (Sea of Japan form)			
<i>Gasterosteus aculeatus</i> (Pacific Ocean form)			
<i>Pungitius tymensis</i>		NT	
<i>Pungitius pungitius</i> (freshwater type)			
<i>Pungitius pungitius</i> (brackish-water type)			
<b>Syngnathidae</b>			
<i>Syngnathus schlegeli</i>			
<b>SCORPAENIFORMES</b>			
<b>Scorpaenidae</b>			
<i>Sebastes glaucus</i>			
<i>Sebastes alutus</i>			
<i>Sebastes flammeus</i>			
<i>Sebastes borealis</i>			
<i>Sebastes steindachneri</i>			
<i>Sebastes taczanowskii</i>			D
<i>Sebastes wakiyai</i>			
<i>Sebastes minor</i>			
<i>Sebastes schlegelii</i>			
<i>Sebastes vulpes</i>			D
<i>Sebastes trivittatus</i>			
<i>Sebastolobus macrochir</i>			DT
<b>Triglidae</b>			
<i>Lepidotrigla kishinouyei</i>			

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Scientific name	IUCN RL **	MoE RL ***	FA DB ****
<b>Anoplopomatidae</b>			
<i>Erilepis zonifer</i>			
<i>Anoplopoma fimbria</i>			
<b>Hexagrammidae</b>			
<i>Hexagrammos stelleri</i>			
<i>Hexagrammos otakii</i>			
<i>Hexagrammos octogrammus</i>			
<i>Hexagrammos lagocephalus</i>			
<i>Pleurogrammus azonus</i>			
<i>Pleurogrammus monopterygius</i>			
<b>Cottidae</b>			
<i>Hemilepidotus gilberti</i>			
<i>Icelus cataphractus</i>			
<i>Icelus canaliculatus</i>			
<i>Icelus mandibularis</i>			
<i>Triglops jordani</i>			
<i>Triglops scepcticus</i>			
<i>Cottus hangiongensis</i>			
<i>Cottus amblystomopsis</i>			
<i>Enophrys diceraus</i>			
<i>Taurocottus bergi</i>			
<i>Myoxocephalus stelleri</i>			
<i>Myoxocephalus brandti</i>			
<i>Myoxocephalus polyacanthocephalus</i>			
<i>Myoxocephalus jaok</i>			
<i>Porocottus allisi</i>			
<i>Porocottus tentaculatus</i>			
<i>Argyrocottus zanderi</i>			
<i>Cottiusculus schmidtii</i>			
<i>Cottiusculus gonez</i>			
<i>Bero elegans</i>			
<i>Alcichthys elongatus</i>			
<i>Gymnocanthus herzensteini</i>			
<i>Gymnocanthus intermedius</i>			
<i>Gymnocanthus detrisus</i>			
<i>Cottidae</i> gen. sp.			
<b>Hemitripterae</b>			
<i>Hemitripteris villosus</i>			
<i>Nautichthys pribilovius</i>			
<i>Blepsias cirrhosus</i>			
<i>Blepsias bilobus</i>			
<b>Agonidae</b>			
<i>Percis japonicus</i>			
<i>Hypsagonus corniger</i>			
<i>Hypsagonus proboscidalis</i>			
<i>Hypsagonus jordani</i>			
<i>Tilesina gibbosa</i>			
<i>Ocella dodecaedron</i>			
<i>Ocella iburia</i>			
<i>Brachyopsis rostrata</i>			
<i>Pallasina barbata</i>			
<i>Podothecus sachi</i>			
<i>Podothecus sturioides</i>			
<i>Podothecus hamlini</i>			
<i>Freemanichthys thompsoni</i>			
<i>Bothragonus occidentalis</i>			
<b>Psychrolutidae</b>			
<i>Malacocottus zonurus</i>			
<i>Dasycottus setiger</i>			

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Scientific name	IUCN RL **	MoE RL ***	FA DB ****
<i>Eurymen gyrinus</i>			
<b>Cyclopteridae</b>			
<i>Eumicrotremus taranetzi</i>			
<i>Eumicrotremus pacificus</i>			
<i>Aptocyclus ventricosus</i>			
<b>Liparidae</b>			
<i>Liparis miostomus</i>			
<i>Liparis ochotensis</i>			
<i>Liparis agassizii</i>			
<i>Liparis latifrons</i>			
<i>Crystallichthys matsushimae</i>			
<i>Squaloliparis dentatus</i>			
<i>Careproctus macrodiscus</i>			
<i>Careproctus furcellus</i>			
<i>Careproctus cypselurus</i>			
<i>Careproctus cyclocephalus</i>			
<i>Careproctus rastrinus</i>			
<i>Careproctus colletti</i>			
<i>Careproctus roseofuscus</i>			
<i>Careproctus mederi</i>			
<i>Careproctus parvidiscus</i>			
<i>Careproctus</i> sp.			
<i>Paraliparis grandis</i>			
<b>PERCIFORMES</b>			
<b>Priacanthidae</b>			
<i>Cookeolus japonicus</i>			
<b>Pomatomidae</b>			
<i>Scombrops boops</i>			
<b>Echeneidae</b>			
<i>Echeneis naucrates</i>			
<b>Coryphaenidae</b>			
<i>Coryphaena hippurus</i>			
<b>Carangidae</b>			
<i>Trachurus japonicus</i>			
<i>Seriola quinqueradiata</i>			
<i>Seriola lalandi</i>			
<i>Alectis ciliaris</i>			
<i>Naucrates ductor</i>			
<b>Emmelichthyidae</b>			
<i>Erythrocles schlegelii</i>			
<b>Lobotidae</b>			
<i>Lobotes surinamensis</i>			
<b>Oplegnathidae</b>			
<i>Oplegnathus fasciatus</i>			
<i>Oplegnathus punctatus</i>			
<b>Cichlidae</b>			
<i>Oreochromis niloticus</i>			
<b>Embiotocidae</b>			
<i>Ditrema temmincki</i>			
<b>Bathymasteridae</b>			
<i>Bathymaster derjugini</i>			
<b>Zoarcidae</b>			
<i>Neozarces steindachneri</i>			
<i>Zoarces elongatus</i>			
<i>Petroschmidia albonotata</i>			
<i>Lycenchelys albomaculata</i>			
<i>Lycodes soldatovi</i>			
<i>Bothrocara molle</i>			
<i>Bothrocara tanakae</i>			



\*\* Red List categories of IUCN, details are given on the last page

\*\*\* Red List Categories of Japanese Ministry of the Environment, details are given on the last page

\*\*\*\* Data Book Categories of Japanese Fisheries Agency, details are given on the last page

Scientific name	IUCN RL **	MoE RL ***	FA DB ****
<i>Bothrocarina microcephala</i>			
<b>Stichaeidae</b>			
<i>Chirolophis japonicus</i>			
<i>Soldatovia polyactocephala</i>			
<i>Opisthocentrus ocellatus</i>			
<i>Pholidapus dybowskii</i>			
<i>Lumpenopsis pavlenkoi</i>			
<i>Ernogrammus hexagrammus</i>			
<i>Stichaeopsis nana</i>			
<i>Stichaeus grigorjewi</i>			
<i>Stichaeus nozawai</i>			
<i>Stichaeus fuscus</i>			
<i>Lumpenella longirostris</i>			
<i>Acantholumpenus mackayi</i>			
<i>Lumpenus sagitta</i>			
<i>Leptostichaeus pumilus</i>			
<b>Pholidae</b>			
<i>Rhodymenichthys dolichogaster</i>			
<i>Pholis picta</i>			
<i>Pholis fasciata</i>			
<i>Pholis crassisпина</i>			
<b>Anarhichadidae</b>			
<i>Anarhichas orientalis</i>			
<b>Zaproridae</b>			
<i>Zaprora silenus</i>			
<b>Trichodontidae</b>			
<i>Arctoscopus japonicus</i>			DT
<b>Ammodytidae</b>			
<i>Ammodytes personatus</i>			
<b>Gobiidae</b>			
<i>Gymnogobius urotaenia</i>			
<i>Gymnogobius petsiliensis</i>			
<i>Acanthogobius lactipes</i>			
<i>Luciogobius guttatus</i>			
<i>Gymnogobius castaneus</i>			
<b>Trichiuridae</b>			
<i>Trichiurus japonicus</i>			
<b>Scombridae</b>			
<i>Scomber japonicus</i>			
<i>Auxis rochei</i>			
<i>Thunnus thynnus</i>			
<i>Katsuwonus pelamis</i>			
<b>Xiphiidae</b>			
<i>Istiophorus platypterus</i>			
<b>Centrolophidae</b>			
<i>Hyperoglyphe japonica</i>			
<i>Psenopsis anomala</i>			
<b>PLEURONECTIFORMES</b>			
<b>Pleuronectidae</b>			
<i>Atheresthes evermanni</i>			
<i>Reinhardtius hippoglossoides</i>			
<i>Hippoglossus stenolepis</i>			D
<i>Acanthopsetta nadeshnyi</i>			
<i>Hippoglossoides pinetorum</i>			D
<i>Hippoglossoides dubius</i>			
<i>Verasper moseri</i>			R
<i>Pleuronectes mochigarei</i>			
<i>Pleuronectes punctatissimus</i>			
<i>Pleuronectes asper</i>			

\*\* Red List categories of IUCN, details are given on the last page

\*\*\* Red List Categories of Japanese Ministry of the Environment, details are given on the last page

\*\*\*\* Data Book Categories of Japanese Fisheries Agency, details are given on the last page

Scientific name	IUCN RL **	MoE RL ***	FA DB ****
<i>Pleuronectes herzensteinii</i>			
<i>Pleuronectes schrenki</i>			
<i>Pleuronectes obscurus</i>			
<i>Pleuronectes quadrituberculatus</i>			
<i>Platichthys stellatus</i>			
<i>Kareius bicoloratus</i>			
<i>Clidoderma asperrimum</i>			
<i>Glyptocephalus stelleri</i>			
<b>TETRAODONTIFORMES</b>			
<b>Monacanthidae</b>			
<i>Thamnaconus modestus</i>			
<b>Tetraodontidae</b>			
<i>Takifugu porphyreus</i>			
<i>Takifugu xanthopterus</i>			
<b>Diodontidae</b>			
<i>Diodon holocanthus</i>			
<b>Molidae</b>			
<i>Mola mola</i>			

## References

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## The Categories

### \*\*Categories of IUCN Red List

EX	EXTINCT: A taxon is Extinct when there is no reasonable doubt that the last individual has died. A taxon is presumed Extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.
EW	EXTINCT IN THE WILD: A taxon is Extinct in the Wild when it is known only to survive in cultivation, in captivity or as a naturalized population (or populations) well outside the past range. A taxon is presumed Extinct in the Wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.
CR	CRITICALLY ENDANGERED: A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered, and it is therefore considered to be facing an extremely high risk of extinction in the wild.
EN	ENDANGERED: A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered, and it is therefore considered to be facing a very high risk of extinction in the wild.
VU	VULNERABLE: A taxon is Vulnerable when the best available evidence indicates that it meets any of the criteria A to E for Vulnerable, and it is therefore considered to be facing a high risk of
NT	NEAR THREATENED: A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.
LR(1994 category)	LOWER RISK: A taxon is Lower Risk when it has been evaluated, does not satisfy the criteria for any of the categories Critically Endangered, Endangered or Vulnerable. Taxa included in the Lower Risk category can be separated into three subcategories:
LR/cd	Conservation Dependent. Taxa which are the focus of a continuing taxon-specific or habitat-specific conservation programme targeted towards the taxon in question, the cessation of which would result in the taxon qualifying for one of the threatened categories above within a period of five years.
LR/nt	Near Threatened. Taxa which do not qualify for Conservation Dependent, but which are close to qualifying for Vulnerable.
LR/lc	Least Concern. Taxa which do not qualify for Conservation Dependent or Near Threatened.

### \*\*\*Categories of Red Data Book published by Environment Agency of Japan

EX	Extinct: A taxon is considered extinct in Japan.
EW	Extinct in the wild: A taxon known only to survive in cultivation or in captivity.
CR	Threatened IA: Critically Endangered. A taxon is facing an extremely high risk of extinction in the wild immediate future.
EN	Threatened IB: Endangered. A taxon is not Critically Endangered but is facing a very high risk of extinction in the wild in the near future.
VU	Threatened II: Vulnerable. A taxon believed likely to move into the upper rank in near future if the casual factors continue operating.
NT	Near threatened: A taxon which are close to qualifying for vulnerable.

\*\*\* Date Book Categories of Japanese Fisheries Agency

EN	Endangered: A taxon considered to be facing a very high risk of extinction.
VU	Vulnerable: A taxon considered to be facing a high risk of extinction.
R	Rare: A taxon that is vulnerable in terms of its base for survival. It is transferred to the next category depending on environmental conditions. a. Low population density and scarce b. Very limited habitat c. Isolated distribution biogeographically d. Special environmental conditions required in all or part of the life cycle  Judging from the change in habitat, the survival of the species becomes threatened. a. Decline in population b. Worsening living conditions c. Under threat of over-capture or collection pressure d. Intrusion of crossable species or subspecies
D	Decreasing: A taxon that is evidently declining in population. It is difficult to recover to the population in the past because of changes to living conditions, or of continuous collection pressure.
DT	Decreasing Tendency : A taxon considered to be on the decrease in population on a long-term basis. The long-term variation seen from the fishery statistics and other documents clearly backs the trend of gradual decline.
TD	Tenporal Decreasing: A taxon considered to be within the range of natural fluctuations. Recovery is possible.

## References

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- Ministry of the Environment (2003) Threatened Wildlife of Japan - Red Data Book 2nd ed., Pisces-Brackish and Fresh Water Fishes. 230pp. Japan Wildlife Research Center, Tokyo.
- The IUCN Red List of Threatened Species: <http://www.iucn.org/themes/ssc/red-lists.htm>