

Level 1 Parent Threat	Level 2	Priority Level 3 Threats	HIGHLANDS Level 3 Priority Threats
	2	Agriculture and Aquaculture: Threats from agricultural activities, such as the expansion and intensification of agriculture and livestock farming, including silviculture, mariculture and aquaculture and related infrastructures. This includes the initial conversion of habitat (deforestation, filling/excavation, draining of wetlands, etc.) that is associated with cultivation or infrastructure development, as well as uses and practices (intensification of agricultural practices, use of machinery, etc.), but not the transport of the resources that are produced, crop irrigation or pollution.	
	2.1	Annual and Perennial Non-Timber Crops: Non-timber crops that are planted for food, fodder, fuel or other uses; farms, crop fields, vineyards, mixed agroforestry systems, etc. For rotational crops, consider the most intensive practice that is used. Considering the diversity of agricultural practices and related impacts, some speciality cultures will be pooled into a generic threat category.	
	2.1.1	Annual cropping systems (field crops): Wide-row crops that require the most intensive agricultural practices and which have the most significant impacts. E.g., maize (corn), soybean, barley, vegetable crops, oats, wheat, canola, hemp.	
	5	Biological Resource Use: Threats that are due to the use/consumption of wild biological resources, including the impacts of legal, illegal and unintentional harvesting. The disturbance and control of certain species falls under this threat category, which includes habitat conversion and degradation, the development of related infrastructure as well as the uses and practices that are associated with the latter (e.g., use of machinery, wood storage, soil management). Excludes the transport of resources and peat harvesting.	
	5.1	Hunting and Collecting Terrestrial Animals: Hunting animal species or collecting animal products for commercial, recreational, subsistence, cultural, research study or control purposes. Includes hunting terrestrial species and trapping semi-aquatic species. This category also covers incidental captures, control and persecution, but excludes harvesting for research purposes.	
	5.1.4	Poaching/persecution of terrestrial animals: Illegal harvesting of terrestrial animals or animal products (e.g., feathers) for personal, commercial or persecution purposes, or actions that would be interpreted as abuse or harassment of wildlife. E.g., hunters killing coyotes or birds of prey, people deliberately harming snakes out of fear, illegal collection of seabirds or shorebird egg collection, illegal wildlife trade for skins, meat or the pet trade.	
	6	Human Intrusions and Disturbance: Threats from human activities (unrelated to the use of biological resources) that disturb, alter or destroy habitats and their species.	
	6.1	Recreational Activities: Activities with generally low ecological impact that are conducted in natural areas for recreational purposes away from road networks. To be distinguished from (tourism and recreation areas with a significant footprint), which is a source of pressure primarily on habitats, and recreational activities that have a more direct impact on individuals of species (disturbance, mortality) and, to a lesser extent, habitats.	
	6.1.1	Motor vehicles: Using recreational motor vehicles. E.g., ATVs, motocross motorcycles, snowmobiles.	
	7	Natural Systems Modifications: Threats from activities that are generally carried out to improve human welfare, but may result in habitat degradation or destruction. This threat category includes the development or redevelopment (management) of natural and semi-natural habitats, as well as certain natural processes that can act as threats. Stopping a conservation action or a practice that is conducive to conservation is not interpreted as a threat, but as a return to the source threat (e.g., vegetation succession affecting pioneer species). Excludes meteorological or climate change-related threats that may modify natural systems.	
	7.1	Fire and Fire Suppression: Suppression or increase in fire frequency, severity or scope, changes in the <i>natural fire regime</i> that are directly related to human activity. DOES NOT INCLUDE PRESCRIBED FIRE	
	7.1.2	Suppression in the fire regime: Interventions aimed at preventing and putting out forest fires (fire management). E.g., putting out forest fires, controlled burning, creating firebreaks and trenches, and other measures.	
	7.2	Dams and Water Management/Use: Facilities or activities that alter the natural water regime (flow or water levels).	
	7.2.1	Water level management using dams: Construction, operation and water management using non-power dams. Includes the dismantling of man-made dams and excludes dams used for power generation, but excludes lock systems. E.g., dams and weirs for containing water.	
	7.2.3	Water management using culverts: The design, installation and management of culverts that are used to permit water flow under roads or railroads can cause discontinuities in streams and promote erosion.	
	7.2.7	Withdrawal of groundwater: Withdrawal of groundwater for human consumption, crop production or other purposes. E.g., pumping water from the water table.	
	7.3	Other Ecosystem Modifications: Other activities that contribute to habitat alteration or loss by redeveloping natural systems to improve human welfare. To be distinguished from the development and maintenance of urban parks.	
	7.3.2	Vegetation succession: Natural vegetation succession causing habitat loss for species of early successional habitats.	
	7.4	Removing / Reducing Human Maintenance: Stopping, reducing, or removing a management activity. Includes vegetation control, PRESCRIBED FIRE , hydrology control, human disturbance, etc.	
	7.4.1	Reducing or ceasing vegetation control: e.g. reducing, removing, or ceasing prescribed fire , removal of invasive species, maintenance of early successional vegetation.	
	8	Invasive and Other Problematic Species, Genes and Diseases: Threats posed by non-native and native species (plants, animals, pathogens or genetic materials) that have or are expected to have harmful effects on biodiversity following their introduction, spread or increase in population (abundance).	
	8.1	Invasive Non-Native / Alien Plants & Animals: Harmful plants and animals that were not originally present within an ecosystem, but were directly or indirectly introduced into or spread in the ecosystem as a result of human activities. The concept of exotic species includes species that are not native to a specific habitat; it can therefore include the introduction of species that are considered native to a different region of the US. Domestic species are also considered nonnative, whether they are feral or semi-domesticated (e.g., domestic cats going outside). Also includes introduction of wildlife due to "mercy releases".	
	8.1.2	Terrestrial plants: E.g., <i>Rosa multiflora</i> , garlic mustard, Japanese stiltgrass, <i>Phragmites</i> .	
	8.1.3	Aquatic animals: Zebra mussel, Asian clam, Rusty crayfish, Brown trout, Big head carp	
	8.1.4	Aquatic plants: E.g. Water chestnut, European water milfoil, hydrilla, purple loosestrife.	
	8.2	Problematic Native Plants & Animals: Plants and animals that were originally present in ecosystem(s), but whose populations have increased to a level where they are now "out of control" or overabundant as a direct or indirect result of certain human activities.	
	8.2.2	Increased grazing by vertebrates: E.g., increased grazing by white-tailed deer and snow geese.	
	9	Pollution: Threats that are associated with the introduction of foreign or excess material/energy from point and non-point sources. Threats that are posed by pollution are typically correlated with other human activities listed in the other sections (e.g., air pollution from cars, water pollution from sewage, agricultural effluents). Although there is a direct correlation between pollution and these other threats, their impact (scope and severity) is often evaluated separately from the source activity.	
	9.1	Domestic and Urban Waste Water: Point or non-point source wastewater from residential and urban areas; these discharges (may) contain nutrients, sediments, toxic substances, chemicals, etc.	
	9.1.1	Domestic wastewater: Liquid domestic waste that is produced by urban centres and discharged primarily by the sewage system. E.g., discharges from municipal waste treatment plants, leaks from sewers/septic tanks, untreated discharges, pit toilets, medical components in water (birth control hormones, antidepressants, antibiotics), toxoplasmosis, etc.	
	9.1.2	Run-off: Effluents resulting from urban activities that are separate from the water supply system. Excludes oils and other hydrocarbons. E.g., salt/sand used to de-ice roads, fertilizers and pesticides used for lawns, parks, golf courses.	
	9.3	Agricultural and Forestry Effluents: Wastewater (pollutants) that is generated by agricultural, silvicultural and aquacultural activities. These discharges are transported primarily in drainage systems, runoff and eroded soil; they (may) contain various nutrients, toxic substances, chemicals, etc. Excludes erosion and sedimentation that is associated with drainage systems in agriculture and forestry, and oil spills from machinery.	
	9.3.1	Nutrient Loads: E.g., manure, compost, chemical fertilizers.	
	9.3.2	Soil erosion, sedimentation: Erosion and sedimentation that are due to agricultural or silvicultural activities, regardless of the presence of local drainage systems.	
	9.3.3	Herbicides and Pesticides: Includes the use of inputs for controlling crop pests. E.g., herbicides, insecticides, fungicides.	