Roles of UNEP, WFN, Greenpeace, IUCN

- **UNEP**
- -United Nations Environment Programme
- -branch of UN..intergovernmental
- -"provide leadership" "encourage partnerships" inspiring/informing/enabling
- -provide vision and support eg World conservation Strategy with IUCN and WFN 1980
- -data collection/expertise/monitoringeg. Global Biodiversity Assessment 1995
- -mechanisms and policies eg. CITES 1975
- eg. Convention on Biological Diversity 1992
- -international legal instrument
- -National Biodiversity Strategy and Action Plans
- -strength and influence from authority inherent in the importance of tis mission - environmental management
- -authority (UN) to draw up legally binding(?) international conventions and documents but cannot force countries to sign nor compliance

- **WFN**
- World Wide Fund for Nature (World Wildlife Fund WWF)
- independent conservation organization
- high visibility campaigns to draw attention to issues and influence policy decisions
- lobbying, advocacy, promotion, funding (252 million $, 1995)
- works closely with UNEP and IUCN

- **Greenpeace**
- "independent campaigning organization"
- -non-violent, creative, confrontation
- -draw attention to issues through "bearing witness"
- -provide data, guidelines, expertise, criticism, lobbying

- **IUCN**
- International Union for the Conservation of Nature
- world's largest grouping of environmental scientists
- membership-government agencies, NGO's, private, community
- commissions- Species Survival Commission
- mission- influence, encourage, and assist
- guide gov't
- provide sound baseline information
- works closely with UNEP
- eg. World Conservation Strategy
- Convention on Biological Diversity

- **CITES**
- criticism- membership too vast and diverse
- bureaucracy too complex to act quickly (eg. elephants)
- lack of consensus

World Conservation Strategy

- -Proposed by the IUCN in 1980
- -IUCN, UNEP, WFN
- -sustainable development
- IUCN- "improving quality of human life while living within the carrying capacity of supporting ecosystems"
- -UNEP-"sustainable use" - use of biodiversity to benefit humans but that does not compromise present and future needs and wants
- -WFN- "safeguard the environment while simultaneously improving the quality of their life"
- -biodiversity- not just species but also -genetic diversity (within a species) and-ecological diversity (among ecosystems)
- -BUT- anthropocentric
- -no common consensus on sustainable use
- eg ivory trade- controlled "consumptive use" vs. Ban on tourist industry.
- -no consensus on idea of sustainable development ie contradiction in terms?

Design Criteria for reserves

- -scale-temporal, geographic, socioeconomic
- -determined by:-definition of biodiversity
- -understanding and protecting ecological processes
- -understanding and protecting economic needs of local population
- -historically, scale is too small to provide ecological or economic needs
- -biodiversity- historically; species focus and approach
- -now, genes, species, ecosystems, landscapes
- -temporal component ie evolutionary needs

- -ecological processes
- - evolutionary needs ie diversity, isolation of gene pools, true natural selection.
- -naturalness ie historical range, indigenous
- -minimum viable population size and area
- eg. grizzlies, spotted owl
- eg. migratory species- summer winter ranges and pathways
- -patch dynamics ie gene pool, migration, min. Viable population
- -resilience, stability, feedback mechanisms
- -island biogeography- assumption "species-area curves"
- -critics
- -Economic needs-conservation must be integrated with human activities and needs
- -lost industries must be compensated for (short term) and replaced (long term)

Adequate protection:

- - no industrial activity (eg. logging, mining etc) and limited/ regulated hunting and recreation
- -long term security (ie specified legal status and management authority)
- -size and configuration
- -one large circular area is better than many smaller elongated (reduced surface area)
- -links between sites when required
- -adjacent land use must be compatible
- -3 zones: core area- little if any human influence
- buffer zone-managed only to protect core
- transition zone: compatible sustainable use

I. apply design criteria

1. biodiversity- all levels ie genetic, species, ecosystems, landscape

-interbreeding may have contaminated plains and WB therefore genetic integrity in doubt.

2. ecological processes- small gene pool of some species, artificial selection

-historic range for most

-minimum viable pop's and area

-resilience, stability

-ecological integrity (disease)

-self sustaining (wolves/bison)

3. Economic needs-tourism

threats to game and cattle ranching, logging, hydro

II Adequate protection

1. industrial activity- hydro, logging
   regulated hunting and tourism
2. long-term security- specified status (UNESCO) and management
3. size and configuration- largest park in Canada

-adjacent land use (game and cattle ranching) not compatible

-zoning-some degree of zoning to protect wilderness

-buffer zones (200km)

-transition zone may not be compatible

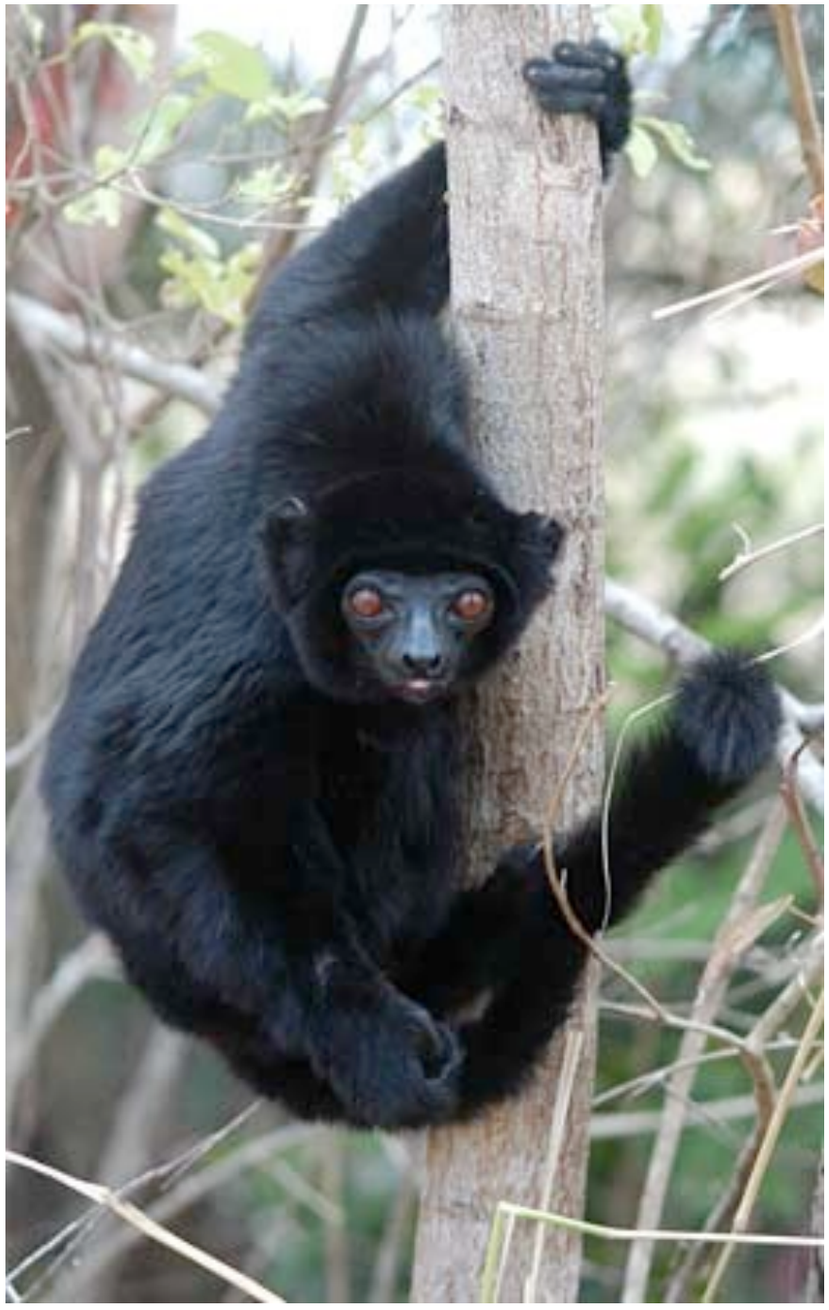
influence of hydro dam, pulp mills, disease

Therefore NO core area exempt from human influence

4. Community support- mixed- tourism and park staff
   - natives
   -agriculture, game and cattle
   -logging
5. Funding- mixed- Parks Canada and general research (Env. Can) cutbacks

Species Based Approach

Strengths	Weaknesses
- simpler to focus on 1 species at a time than on many species	- not ecologically sound -species do not exist in isolation -eg. predators, prey, competitors,
media - high profile species eg. elephants, tiger -high aesthetic value	- media doesn't work with obscure or aesthetically unpleasing species eg tomato frog
-research -easier to focus on a single species	research-needs context of the whole environment /niche
-focus on genetic and species diversity	- ignores community and ecosystem biodiversity
-breeding, reintroduction and zoo programmes	-programmes ineffective because - artificial selection -small gene pool -doesn't ensure protection of the habitat
-easier to control trade (CITES)	-controversy with CITES-ban vs controlled
-only need key species -ecological value	how do you decide on key species




ENDANGERED