

**International Biodiversity Day, 22<sup>nd</sup> May****Focus for 2009 – Invasive Alien Species****Biological Invasions and Climate Change**

Biological invasions occur when alien species that are introduced to a new ecosystem in which they are not indigenous bring about damage to their new habitats – damage to biodiversity, development and people's livelihoods. In this situation the species doing the damage are termed "Alien Invasive Species" (or just plain "invasive species") but it is important to recognize that the ability to invade a new ecosystem or habitat is a combination of the nature of the species that is introduced (which has characteristics of "invasibility") and the characteristics of the habitat to which it is introduced. In other words, biological invasions are the result of the interaction between an alien species and the ecosystem to which it is introduced.

Climate change is another threat to ecosystems and their goods and services. Climate change can bring about changes in the physical characteristics of an ecosystem as well as altering the nature of the species and populations and communities of organisms in that ecosystem. By degrading ecosystems, climate change can make them more susceptible to invasions and, at the same time, some potentially invasive species can become more able to invade because of changes in temperature, rainfall, humidity, etc. that may give them an advantage over native species.

It is therefore extremely important that these two causes of ecosystem decline (as listed by the Millennium Ecosystem Assessment) are understood separately and when they are combined. IUCN feels strongly that invasive species prevention and management (as promoted in the Guiding Principles of the Convention on Biological Diversity advice on reducing alien species threats to biodiversity) should always bear in mind the chance of threats from likely invasive species may be increased by climate change. At the same time, considerations of climate change impacts on biodiversity should also include the likelihood of biological invasions and recognize the enhanced negative impacts of the two causes of ecosystem degradation. This synergy for degradation can occur in terrestrial, freshwater and marine ecosystems and should become a standard item of assessment when considering management for ecosystem health, species conservation plans, protected area monitoring and management and environmental assessments of all types.

International Biodiversity Day is focusing on invasive alien species in 2009. The booklet prepared and distributed by the CBD Secretariat for this day (CBD web ref.) has a section on this topic which points out the increased threat of the combination invasive species and climate change on biodiversity and concludes that "these two drivers of ecological change acting together could produce extreme outcomes". IUCN would like to support this perspective and encourage this message to be spread on Friday, 22<sup>nd</sup> May. IUCN further exhorts all those concerned with the future of biodiversity to consider this unhappy synergy in much more detail and with determination to reduce the enhanced threat of climate change and biological invasions working together.