COMMON ECOLOGICAL MYTHS ABOUT WILDERNESS

Prepared by Peter Landres with the staff at the Carhart National Wilderness Training Center
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1. *MYTH: wilderness is pristine*
   a. Reality: the word pristine means unspoiled or unsullied, and the implication is that people spoil nature. But the ecological systems in many wildernesses have been strongly affected by indigenous people long before these areas were designated as wilderness, and in many cases these interactions have influenced what we call "pristine" today.
   b. Reality: with the pervasive effects of modern people, at this point time no area on our planet is pristine (with or without the influence of indigenous people)

2. *MYTH: people are not part of wilderness*
   a. Reality: wilderness is a human construct
   b. Reality: the social values of wilderness strongly affect today's goals for managing wilderness
   c. Reality: human stories from the land, archaeology, indigenous cultural resources, historical, and other heritage values all are an important part of wilderness character where these resources occur in a wilderness

3. *MYTH: nature is in balance if left alone*
   a. Reality: there is no balance of nature
   b. Reality: ecological systems vary from one place to another
   c. Reality: ecological systems at one location vary over time
   d. Reality: disturbances (fire, insects, wind-throw, landslides, etc) are essential ecosystem processes that have influenced what we see today

4. *MYTH: we are trying to maintain ecosystems today to reflect what they were like at the time of pre-European settlement*
   a. Reality: ecological systems are constantly changing and it is generally impossible and certainly not feasible to push an ecosystem backwards to be like it was at a particular point in time
   b. Reality: ecological systems are constantly changing and it is impossible to maintain an ecosystem at any particular point in time
   c. Reality: we want ecological systems inside wilderness to change according to their own type and rate of change, in other words, our goal in wilderness is to respect the autonomy of nature

5. *MYTH: wilderness designation protects ecological systems from further ecological degradation*
   a. Reality: myriad threats cross the administrative wilderness boundary (for example, nonindigenous species, air pollutants, the effects of upstream or downstream dams, global climate change)
   b. Reality: many authorized uses can degrade wilderness ecological systems (for example, mining, grazing)
   c. Reality: most wildernesses are too small to allow the full range of dispersal and migration of certain species
   d. Reality: natural disturbance regimes (that are critically important for the maintenance of some ecosystems) such as fire are tightly controlled and not allowed to play their ecological role

6. *MYTH: the presence of particular species (for example, wolves or bears) means that the ecological system is functioning as it should and that the area has a high level of ecological integrity*
    a. Reality: ecological systems are extremely complex and no one species could ever serve as an indicator for all the different species and ecological functions within an ecosystem
    b. Reality: some species may have a large effect on the ecological system (such as wolves because they have a strong effect on herbivores that in turn have a strong effect on plants) but other species (such as bears) do not because they are largely opportunists that take advantage of a wide range of resources with no consistent large effect. While these latter species are less important ecologically, they are nonetheless very important for the social value they confer to a wilderness.

7. *MYTH: we have adequate information and understanding to manage and sustain ecological systems inside wilderness*
    a. Reality: scientists lack the information and understanding to help manage and sustain ecosystems, especially ones that occur over large areas
    b. Reality: many actions that are taken for the best of reasons are mostly uncontrolled experiments because they are based on best guesses of how the ecological system functions