Ecosystem Management: Evolution or Revolution?

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by Robert T. Lackey

How should we understand ecosystem management? Is it yet another stage in the evolution of our basic management paradigm—a paradigm that society and natural resource professions have followed for a hundred years—or, is ecosystem management a shift to a totally different paradigm based on an alternative world view? In short, are we witnessing evolution or revolution?

To some, ecosystem management is apparently little more than "holistic" management: more awareness of the interactions and interconnectedness within ecosystems; considering sustainability over longer time frames; weighing a broader spectrum of benefits to society; better managing public lands; involving all those affected by public decisions. Or, as the poster says: *"Ecosystem Management: Considering Everything."* We would be hard pressed to find *anyone* who is against these things. In short, they mean little.

This evolution of the *management* paradigm has been long dominant in "modern" society. We may argue vociferously over the benefits of fish in the creel, debate the importance afforded biologic or genetic diversity, consider endemic species more important than exotic ones, or minimize the influence of human activities, but the management paradigm is the same. There is change, but the change is incremental, and adjustment is relatively easy for bureaucracies and the public. In this **evolutionary** view, all benefits flow to humans, and rights and interests are intrinsic only to humans. As a society, we may choose to preserve all biological

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diversity, protect all gene pools, and set aside vast tracts of land that few even visit, but the benefits of these decisions flow to humans, whether those benefits are tangible or intangible.

A competing world view is not evolutionary but is a fundamental paradigm shift. The demand is for justice—*ecological* justice. In this **revolutionary** view, the modern, linear, engineering, anthropocentric perspective, is simply wrong, immoral, and the cause of our problems. To "manage" ecosystems is human arrogance. The demand here is not for modification of our policies, but to ask fundamentally different questions.

Do animals and plants have rights? Who are we, as one species, to ask such a question? Of course they have rights! If we are to "manage," it ought to be to maintain the planet in a state where all plant and animal species, if not individuals, can survive. And whose property is this? Is the concept of ownership even relevant? How can one species own another? Why should some humans be permitted to impose their destructive will on other species? Must we dominate the planet? Do we manage to maximize benefits to society? In revolutionary ecosystem management, we must make decisions as members of the biotic community, and demand ecological justice.

This view of ecosystem management scares many people. It scares me. For those who don't support the revolutionary view of ecosystem management, there are two obvious choices: (1) Ban or outlaw it. Call it un-American. Call it subversive (and many do); or (2) Take the more sophisticated approach and co-opt it. Embrace the words but not the philosophy. In short, finesse the issue away.

So, which world view are we talking about in ecosystem management? I have a little testing kit. It is simple to apply — all you have to do is listen for how certain key words or phrases are used. A few examples:

Health. Health is a noble word. Health is good; sickness is bad. Healthy describes a lifestyle you want for your kids; unhealthy is something to be avoided. Ecological health is a favorite of evolutionary ecosystem management. You will hear: *"Our agency is in favor of ecological health— we make decisions toward this end."* Never mind that health is a value judgment, a political judgment—we are all in favor of health. How many people champion sickness? Revolutionary ecosystem management is not comfortable with this value-dependent view of health. Better than "health" is "natural," and natural is unaffected by humans (or only slightly affected by humans, with a very light footprint). Health is being co-opted as a concept, and can slip undefined into discussions of ecosystem management.

Management. Management is one of those simple words that exposes your world view. Revolutionary ecosystem managers chafe under the rubric. To manage implies stewardship, which implies an anthropocentric world view. Evolutionary ecosystem managers would respond, if they were candid, with: "Get a life—even aboriginal populations used animals and plants. They 'managed' as we do, only there were fewer of them and their standard of living was not as high. Besides, do you want to go back to human mortalities of 50% before age 5?"

Sustainability. Evolutionary ecosystem managers love this term nearly as much as ecological health, because it conveys a different meaning to every listener. Who can be against sustainability? Revolutionary ecosystem managers would say that if you are making **moral** decisions, sustainability *just happens*. You don't manage for it; it is a by-product.

There are other words and phrases to test the orientation of champions of ecosystem management: holistic, biological diversity, biological integrity, community involvement, empowerment, enlightened land ethic. They fill the discourse, yet they serve little function other than to mask our lack of consensus. Who knows what they mean in the debate over ecosystem management? The point is...no one does!

Where does all this leave us? The divisive issues in ecosystem management are not technical: they are moral and philosophical. We argue about the importance of biological diversity for ecosystem stability or perhaps for a future cure for cancer, but the real debate is over the morality of extirpating species or gene pools. Satellites and computers, DNA probes and genetic engineering, electrophoresis and electrofishing—natural resource scientists, with all our glorious technical gadgets, will be no more relevant to resolving the moral issues in ecosystem management than are physicians in resolving the morality of abortion. These are not scientific questions!

Scientific uncertainty is obviously high in much of ecosystem management, but let's not kid ourselves that it will be substantially reduced anytime soon. Science and research can—and must—play an important role in helping society formulate policy options and evaluate their consequences, but a strong dose of humility is warranted when it comes to assessing our technical capability.

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What will happen to the concept and practice of ecosystem management? My guess is that it will be embraced by the bureaucracy and become yet another step in the evolution of public policy. It will not be revolutionary. Few representatives from government or commerce will fail to enthusiastically support ecosystem management. It will mean a continuation of the trend toward placing greater weight on nonconsumptive societal benefits—environmental quality if you will—a trend that should not surprise any of us.

And finally, the underlying moral philosophy that spawned the emergence of revolutionary ecosystem management as a fresh, potentially radical concept will not disappear. Shards of this philosophy can be found in the "animal rights" theology, the "small is beautiful" proponents, and the "community-based green movement." Whatever the direction, certainly future issues in ecosystem management will be no less divisive and challenging than those we now face.

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