

**THE SPOTTED OWL AND THE CONTESTED MORAL LANDSCAPE  
OF THE PACIFIC NORTHWEST**

Essay for  
ANIMAL GEOGRAPHIES  
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It is my opinion that this bird should be listed on the threatened list. There are numerous scattered birds but each with its habitat is threatened. Even if there were no direct threats to wipe it out, the habits of our society to convert everything into the almighty dollar is threat enough [Comment #I.249, Spotted Owl Administrative Record (U.S.D.I. 1990a)].

I feel this spotted owl thing is a hoax. This bird has been seen nesting in secondary growth. I feel in order for me to provide an income for myself and my family, and to also stay living in Oregon these unrealist actions by these preservationists must stop. [Comment #I.54, Spotted Owl Administrative Record (U.S.D.I. 1990a)].

## **THEORY: HABITAT AS MORAL LANDSCAPE**

### **Introduction**

As little as a decade ago, few if any Americans would have heard of the northern spotted owl, *Strix occidentalis caurina*. This elusive, round-eyed creature is now one of the most prominent icons of the environmental movement, in large part due to its 1990 listing as a threatened species pursuant to the U.S. Endangered Species Act (U.S.D.I. 1990b). The 1990 listing of the spotted owl led to a series of far-reaching policy actions affecting public forests of the Pacific Northwest, including the recently-adopted Clinton Forest Plan (U.S.D.A.-U.S.D.I. 1993; 1994). Yet, as the epigraphs above suggest, the people of the Pacific Northwest were bitterly divided over whether the spotted owl was worthy of such protection. The question I would like to begin to answer in this essay is: why?

There are, of course, some rather straightforward explanations, the most common being that people who stood to benefit from the owl listing favored it, and people who stood to lose opposed it. If you were an environmentalist and worried about species extinction, the owl listing certainly would make you feel better. If you were an avid hiker and desired vast tracts of untrammled wilderness, the owl listing would be a great way to lock up lots of prime forestland from logging. If, on the other hand, you

were a logger, or if you owned a restaurant frequented by loggers, or if you sent your children to school in a district that depended upon federal timber revenues, the listing would look like nothing short of a threat to the very economic and social fabric of your lives.

This interests theory is, however, a shallow explanation when taken alone, because it flattens people into knee-jerk reactive machines. The spotted owl debate was about interests, but not only interests; when we look deeper, we see a clash of meanings as well. It is these divergent meanings that I wish to explore in this essay, as they play an increasingly important role in the ways late industrial societies think and act toward animals.

### **The Ambivalent Symbolism of the Owl**

People have long held divergent meanings of “owls.” Owl symbolism in Western civilization can be traced back as far as Lilith, the Mesopotamian goddess of death, who had wings and talons as well as owls at her side (Johnsgard 1988, 85). Lilith may have been the inspiration for Pallas Athene, the Greek goddess of wisdom and warfare. Lilith and Pallas Athene exemplify the multiple meanings owls have had over the last several millenia: owls as wise, owls as humanlike, owls as killers, owls as the sign of death.

In some ways, this contradictory symbolic import has arisen due to characteristics of the bird itself (Sparks 1984). Owls, of course, are predators, and could easily be linked to death and warfare. Yet their hunting occurs at night, largely behind a cloak of darkness. The owl of daytime that people encounter seems a far different creature altogether, with visual characteristics that more resemble humans than any other bird. The large eyes, designed so well for night vision and set in front of the head, which itself is broad and flat like that of humans, set on a vertical body posture, all contribute to a strong affinity between the human and the owl. Though there is little biological evidence that the owl is necessarily smarter than other avian species, its appearance

lends itself to that ascription, and in fact since medieval times the quiet, all-seeing owl has been strongly associated with wisdom and learning. And so the owl has long had what Sparks referred to quite accurately as a “Jekyll and Hyde” duality in western culture.

These differing meanings are clearly apparent in the Pacific Northwest (Yaffee 1994, xi). Indeed, were the animal of contention a salamander or a mountain lion or even a songbird, there is little doubt that its symbolic role would have changed, as the valence of innocence, of humanness, of danger in these animals is far different than that of the spotted owl. The longstanding polarities of good and evil surrounding owls probably played a major role in providing a distinct focus to the pro- and anti-listing forces; it was, following this line of reasoning, inevitable that some people would have found spotted owl protection to be more of a threat than others.

This mode of explanation has merit, but it narrowly circumscribes the contested meanings that arose in the Pacific Northwest, as the bulk of the debate over the last decade has focused on management of the region’s old-growth coniferous forests (Ervin 1989; Dietrich 1992; Seideman 1993), which happen to be the northern spotted owl’s preferred nesting and roosting habitat. Indeed, both supporters and opponents of spotted owl protection focused their attention primarily on forests: the environmental movement cautiously downplayed its interest in the spotted owl relative to protection of old-growth forests, and the pro-timber coalition preferred to discuss tree replanting over maintenance of spotted owl habitat. This avoidance is probably due in part to the longstanding potency and ambivalence of the owl as a symbol, making it a questionably faithful partner in either the environmentalist or pro-timber cause. Yet in many respects, the owl became a living symbol for primeval nature as typified in Pacific Northwest old-growth forests. In fact, the spotted owl has played an official symbolic role in this regard a management indicator species, or MIS.<sup>1</sup> The MIS is the proverbial canary in the coal mine, whose viability or downfall implies the trajectory of an entire

ecosystem. In this sense, the health of the spotted owl population in the region has been taken as suggesting the status of old-growth forests.

What is thus necessary, I believe, to make meaningful sense of the spotted owl debate is to reconnect the animal with one of its most fundamental geographical elements: its home or habitat. This is true with other charismatic animals as well. Think of the wide-eyed giant panda staring down at us from a bamboo tree somewhere in the Szechwan province of China, the majestic elephant lumbering across the East African savannah, the tail fin of a humpback whale disappearing into the ocean as it continues its long migratory journey up and down the eastern Pacific Ocean. In each case we cannot help but see the animal as bound to its habitat. This habitat is both literal and symbolic; the threads of biology and ideology are intertwined in the ways we make sense of an animal's home. My interest here primarily concerns how ideology transforms habitat into a moral landscape, a geographical embodiment of the good.

### **The Moral Landscape**

The term landscape as employed in everyday usage typically refers to a particular kind of place, often one with prominent biophysical features: a pastoral landscape, a wooded landscape, a wilderness landscape, a desert landscape. Yet, in contrast to more scientifically-prevalent terms that describe nature (e.g., "ecosystem") landscape carries with it a sense of place; it is as much the appearance and feeling of a location as the location itself. Landscapes can, among other things, be pleasant, soothing, mysterious, frightening, and beautiful (Tuan 1974; 1977). And this is the potent irony of the term: that the psychological and cultural constructedness of this sense of place is seamlessly embedded in the place itself, to the point that differentiated human meanings become embodied in apparently objective features of nature (cf. Williams 1980). We all know that to one person the desert is a harsh landscape; to another it is simple and uncluttered; to yet another it is exceedingly lonely. All these attributes are, in reality, a

complex interweaving of the subject and the object, yet they are rarely understood as such.

The common-sense usage of the term landscape thus reveals the tension inherent in the word: land (something objective, separate from the subject) as a view (something subjective by definition). This tension is evident in its use by geographers as well. James Duncan defines landscape as “a polysemic term referring to the appearance of an area, the assemblage of objects used to produce that appearance, and to the area itself” (Duncan 1994, 316). The word has been used by geographers in both the objective sense as a particular stretch of land, and in the subjective sense as a way of seeing the land (Duncan 1995). For example, Carl Sauer, the founder of the influential Berkeley school of geography, imported the term Landschaft from late 19th-century German geography as a way to examine the human transformation of nature in specific places (Sauer 1963). In a very different sense, the word landscape has been used more recently by cultural geographers as a social construction, one that reveals much more about the viewer than the land viewed (Cosgrove 1984; Daniels 1989; Duncan 1990; Baker and Biger 1992; Daniels 1993). Nature becomes, in this sense, an ideological landscape (Olwig 1984), a meaningful representation of human values and interests, of social and human-environment relations, embodied geographically in the land, which nonetheless is generally apprehended not as ideology but as “reality.”

I am using the term moral landscape<sup>2</sup> in order to place attention on matters of value that permeate the spotted owl and old-growth debate; yet of course this is a bit redundant. If landscape is a meaningful description of place, then landscape is inherently moral, since these meanings are never purely descriptive (“this is a forest”) but normative as well (e.g., “this is a forest that has been imperiled by logging,” or “this is a forest that has been improved by scientific management”). The modifier “moral” does remind us, though, that the landscape carries tremendous normative weight by geographically embodying an idea of the good.

Like biophysical landscapes, which are shaped by and respond to tremendous geological, climatic, and other forces, moral landscapes are a result of (and a particular moment in) a process of creating and interpreting meaning. One example of this dynamic approach to meaning is the work of Jacquelin Burgess, in the context of environmental values and mass communications media (Burgess and Gold 1985; 1990). In Burgess' account, there are four phases in the social cycle of meaning: the context and act of production, the produced text, the interpretive readings or consumption of the text by people, and its subsequent interweaving with lived culture ( cf. Johnson 1986; Burgess 1990, 145ff.). Meaning then is both process (production/consumption) and product (text/culture). The actual situation is even more complex, for not only is consumption of meaning highly variable, but there are commonly multiple, conflicting meanings being produced and distributed as well. The circuit of culture thus becomes an overlapping and contradictory set of paths of meaning creation and consumption.

I will adopt an analytical framework similar to that of Burgess, yet primarily informed by theory on the analysis of ideology (Thompson 1984; McLellan 1986; Cormack 1992). This approach addresses three phases in the production and consumption of ideologically-based meanings: intent, mechanism, and outcome. As production and consumption are separate, so are intent and outcome: what a particular social group intends to accomplish by means of propagating a set of meanings may or may not occur, both because these meanings are differentially interpreted by people, and because these meanings may or may not result in the desired material effects (e.g., impacts on popular opinion or policy enactment). The mechanism is the rhetorical content and form by which a particular meaning is propagated. Several common mechanisms have been identified in the literature (Thompson 1990, 60ff.; Eagleton 1991, 45ff.); examples include universalization (making the interests of the few appear to be the interests of the many), rationalization ("defending the indefensible," in Eagleton's account), and naturalization or reification (portraying a transitory, constructed state of

affairs as fixed and eternal). Critical analysis of mechanisms is particularly crucial in unmasking ideology, as these are the means by which the decidedly partial becomes all-encompassing and apparently irrefutable.

The three components of intent, mechanism and outcome suggest a process of building moral landscapes in the Pacific Northwest in the context of the spotted owl and old-growth debate that focuses primarily on the production of meaning by environmentalists and the timber industry and supporters, and then on its popular consumption by the region's inhabitants. The process is not entirely linear, however; as in the framework adopted by Burgess, anticipated and historical patterns of ideological consumption guide ideological production. Nonetheless, I will adopt this sequence for clarity below, considering first the outreach by environmentalists and the timber industry and its supporters, and then the popular response by the region's inhabitants.

The empirical basis of this essay is the period immediately preceding the spotted owl listing, a particularly critical moment in the old-growth debate. I will focus on the case of Oregon, a state where the spotted owl debate was particularly pronounced due to the prominence of the wood products industry as well as the relative prevalence of remaining old-growth forests. Primary sources for outreach include both published and unpublished materials as well as interviews with interest group representatives conducted July 1991; sources for popular response include written comments submitted to the U.S. Fish and Wildlife Service (FWS) regarding the proposed spotted owl listing, and a number of public opinion polls that were conducted during 1989 and 1990.<sup>3</sup>

What emerges is an animal geography shaped as much by the ideological production and consumption of moral landscapes as by the biology of the spotted owl and its habitat. The former element wove seamlessly through the latter, so that the debate over whether or not the spotted owl should receive special protection under the Endangered Species Act became in the last analysis a political struggle over whose moral landscape was to prevail. Yet moral landscapes are not innocent entities; as we

will see, there is a decided partiality to all geographical embodiments of the good as suggested in the spotted owl debate.

## **BACKGROUND: THE LISTING DEBATE**

### **The Northern Spotted Owl Listing**

The northern spotted owl is found only in the coniferous forests of the Pacific Northwest, with habitat stretching from northern California to lower British Columbia (Figure 1). Though concern over the status of the spotted owl dates from the early 1970s, there was no formal proposal to list it until the latter 1980s.<sup>4</sup> During this period old-growth stands dwindled rapidly on federal lands in spite of federal programs designed explicitly to protect owls (U.S.D.A. 1988). In January 1987 a petition was submitted by the conservation group Greenworld of Cambridge, Massachusetts to the FWS proposing that the species be listed as endangered under the Endangered Species Act (ESA). The proposal to list the owl was ultimately rejected: in December 1987 the FWS concluded that the owl was not endangered and dismissed the petition. A federal audit, however, found that the process used by the FWS in arriving at its decision was “beset by many problems” which ultimately “raise serious questions about whether FWS maintained its scientific objectivity during the spotted owl petition process” (G.A.O. 1989, 12).<sup>5</sup>

Subsequent to the rejection, the Sierra Club Legal Defense Fund sued relevant federal agencies on the grounds that biological evidence did in fact substantiate the proposed listing of the owl. The case, Northern Spotted Owl vs. Hodel, eventually resulted in the status review being reopened, which led to the decision by the FWS in April of 1989 that scientific evidence indicated the northern spotted owl was threatened throughout its range. The proposed listing of the owl as threatened was published in the Federal Register on June 23, 1989 (U.S.D.I. 1989), initiating what became nearly a year of controversy in the Pacific Northwest.

During the 1989–90 proposed listing, the FWS gathered additional biological information on the owl. One pivotal report (Thomas et al. 1990), known as the ISC report after the Interagency Scientific Committee which produced it, concluded that the owl is “imperiled over significant portions of its range because of continuing losses of habitat from logging and natural disturbances,” and argued that current protection, such as the Forest Service network of SOHAs (spotted owl habitat areas for individual pairs) totaling over 700,000 acres in Oregon, Washington and northern California, was inadequate. In its place, the ISC report recommended that a total of 8.3 million acres of forest should initially be set aside as blocks of habitat conservation areas to support multiple pairs of owls; timber management in between HCAs would be such that owls could safely migrate from one HCA to another, and ongoing research and monitoring would establish whether the strategy was effective and whether timber production could increase without endangering the owl. The areal extent of the ISC proposal was considerably more than environmentalists had ever dreamed of, and far worse than the timber industry had feared. The ISC report generated a flurry of controversy in the spring of 1990 over the biological necessity and human ramifications of such a large-scale effort to protect the owl.

The 1990 FWS status review of the owl, while conducted independently of the ISC report, arrived at essentially the same conclusion: the owl was in trouble due to loss of old-growth habitat from logging, and existing regulatory mechanisms were inadequate to protect remaining spotted owl habitat. The status review committee recommended that the owl be listed as threatened (a designation meaning that an organism, while not immediately in danger of extinction, would likely become so in the foreseeable future) throughout its range. The status review became the principal basis for the final decision, published in the Federal Register on June 26, 1990, listing the owl as threatened throughout its range effective July 23 (U.S.D.I. 1990b). Pursuant to Endangered Species Act provisions, the spotted owl listing decision was based solely on

biological and management evidence; projected adverse economic impacts of owl protection, for example, were not considered as evidence. Following the listing decision, the FWS designated 6.9 million acres of public forest as critical habitat for the spotted owl (U.S.D.I. 1992a), and produced a draft recovery plan (U.S.D.I. 1992b). Ultimately, the environmentalists' dream, and the timber industry's nightmare, had finally come true.

### **Principal Organizations and Formal Response**

The proposed spotted owl listing largely pitted national and regional environmental organizations against the timber industry and related interests, many of which were regionally based. One of the most prominent environmental groups involved in the spotted owl and old-growth debate is the Wilderness Society, which opened a Portland office in 1989 specifically in response to the magnitude and popularity of these issues. The Wilderness Society attracted considerable support for its role in the debate: membership doubled between 1989 and 1991 to 410,000 nationally. Examples of regional environmental groups include the Oregon Natural Resources Council (ONRC), a coalition of over 90 conservation, recreational, and other organizations, and the Native Forest Council (NFC), headquartered in Eugene, Oregon (though drawing nearly half of its membership from supporters outside of the region), whose policy bottom line was to halt logging of all "native" (i.e., old-growth) forests on public lands.

Environmental groups unsurprisingly offered strong support for the proposed owl listing. The Wilderness Society, for example, cited as reasons drastic reduction and fragmentation of suitable old-growth habitat, demographic data suggesting the owl is in danger of extinction, and the refusal of the Forest Service and Bureau of Land Management, who control over 80 percent of remaining habitat, to protect sufficient habitat to protect the owl. It strove in its formal comments to discredit timber industry claims that spotted owls do not require old-growth forests as habitat, arguing for instance that reported sightings of owls residing in second-growth stands in California

are “inconsequential,” since these are coastal redwood forests, where old-growth structural characteristics are attained far sooner than in other forests in the owl’s range (Wilderness Society 1989b).

On the other side, the diverse interests comprising the wood products industry presented a relatively unified front in response to the threat posed by the spotted owl listing. One organization in particular, the Northwest Forest Resource Council (NFRC), acted as the chief industry voice in opposition to the listing. Based in Portland, Oregon, the NFRC is a coalition of industry associations in Oregon and Washington whose members are to some degree dependent on federal timber. Timber industry representatives were joined in their opposition to the proposed owl listing by a number of so-called “grassroots” groups, in which local community participation was emphasized. In Oregon, these grassroots groups joined forces as the Oregon Lands Coalition (OLC), a consortium of resource-use interests such as Associated Oregon Loggers, Oregon Fur Takers, and the Oregon Off-Highway Vehicle Association, devoted to “heightening community awareness and knowledge about the importance of the wise, multiple-use of public lands, balancing resource protection and resource production” (unpublished OLC pamphlet 1990).

The NFRC and the OLC were extremely active in responding to the Fish and Wildlife Service regarding the proposed owl listing, trying every conceivable means to forestall or prevent ESA protection of the spotted owl. The OLC, for instance, petitioned the FWS to withdraw their proposed listing of the owl, arguing that “inadequate scientific data exists to justify the proposal to list,” and giving examples such as taxonomic errors, unreliable population estimates and sampling bias in estimating owl demography (Oregon Lands Coalition 1989). These groups also lobbied strongly for the Fish and Wildlife Service to extend the formal comment period, and alter the method by which the FWS would consider evidence submitted regarding the listing. In September, 1989, the NFRC formally requested that the owl listing comment

period, slated to close on September 21, be extended to December 20. They argued that new and insufficiently-analyzed data were available, and requested that formal evidentiary hearings be held to “allow the Service to distinguish valid scientific information from mere speculation and hypothesis” (Northwest Forest Resource Council 1989).<sup>6</sup>

The NFRC also attempted to discredit rival scientific opinions on the owl listing. For example, a review of the Wilderness Society’s old growth status report dated February 1989 charges that it utilized Forest Service timber inventory data not amenable to ecological classification, and applied a severely restrictive definition of old growth (U.S.D.I. 1990a, index IV.E.3.a). The NFRC concluded that it would be premature and misleading to use the Wilderness Society’s figures. In another submittal, the NFRC charged that the ISC report was little more than a “theory” for preserving the owl, and would certainly entail major human implications if carried out.<sup>7</sup>

### **THE OWL, THE FOREST, AND THE TREES: LANDSCAPE PRODUCTION/COUNTERPRODUCTION**

During the proposed listing period, pro-timber and environmental groups waged a public outreach campaign to secure popular support for their positions. This outreach was the primary ideological vehicle by which the production of moral landscapes occurred, and as such merits our close attention here. I will begin by considering the outreach of the environmental groups, and then turn to the very different geographical embodiment of the good as suggested in pro-timber outreach.

#### **Environmentalist Outreach**

Public outreach by environmental organizations during the period of the proposed spotted owl listing took a variety of forms, including television productions and radio commercials, pamphlets, and mass letter mailings to members. Following are representative selections.

## **The owl and its dwindling habitat**

The spotted owl became an icon of the environmental movement during the Pacific Northwest battle, providing mute testimony to the plight of old-growth forests. It was frequently found in environmentalist outreach to its members (Figure 2), or publications intended for a sympathetic audience. Yet in these and other cases, primary stress was placed on old-growth (what the environmentalists generally called “ancient”) forests, not the owl per se.

Nonetheless, the owl became a familiar symbol to environmentalists of nonhuman nature threatened by humans. In one Wilderness Society video on old-growth forests, for instance, the spotted owl is heard at the outset, hooting in a peaceful old-growth forest (Wilderness Society 1989a). This setting is shattered with the snarl of chainsaws in the background, a sound that grows to a deafening roar and then ends with crashing trees and a ground-level scene of a clearcut. The sound of birds is now replaced with the buzzing of flies; the towering old trees are now stumps. The commentator says, “An age-old forest lost in a day.” Old-growth forests are again the ultimate focus of attention when the discussion later moves more directly to the northern spotted owl, “A measure of the health of the entire old-growth ecosystem,” and a wildlife biologist talks of owl habitat diminishing against background scenes of clearcuts.

## **The besieged old-growth forest**

Old-growth forest management far overshadowed the status of the spotted owl as the focus of environmentalist outreach during this period. The Wilderness Society, for instance, produced a vast portfolio of communications with the public in the form of mass mailings, videos (Wilderness Society 1989a), special reports (Olson 1988; Wilderness Society 1988), and sponsored monographs (Norse 1990). One letter sent from then-Wilderness Society President George Frampton to its members in 1989 states “Our nation’s last ancient forests have only one defense against the timber industry’s bulldozers and chainsaws: An outraged American public.” The undated letter

highlights the timber industry's \$12 million advertising campaign, designed "to mislead American citizens and Congress into believing that existing management practices pose no threat to the continued survival of our last pristine ancient forests!" The letter asks for financial support for the Wilderness Society's efforts to launch the "National Forests Campaign," designed to counter the timber industry's public relations initiative.

The Oregon Natural Resources Council was chiefly involved in court litigation and congressional lobbying on issues involving old-growth forest protection, and did not mount a massive public outreach campaign, citing insufficient funds. Nonetheless, the ONRC achieved a level of notoriety in Oregon, chiefly because their spokespersons were frequently called on to provide the environmentalist position regarding news items. One ONRC mailing included an "Ancient Forests Action Packet," which encouraged members to write letters to politicians in support of old-growth forest protection, and offered ecological and economic facts members could cite such as "Less than 10 percent of Oregon's original forest remain in an old growth condition."

The main public outlet of the Native Forest Council was its newsletter publication, Forest Voice; NFC claims that nearly a million copies have been distributed. The first Forest Voice was published in September 1989; its headline reads "An urgent appeal to citizens and Congress: Stop the destruction of the last remnants of the public's native forests." The next page shows another aerial view of a vast clearcut occupying hill after hill of the Olympic National Forest. The caption reads "Brazil? No, this is an American National Forest!" The newsletter includes figures supporting the NFC claim that plenty of private timberland exists to support the nation's timber demand, cartoons depicting the greedy interests of the timber industry, picture after picture of clearcuts in national forests of the Pacific Northwest and elsewhere, an article attempting to debunk the "Myths, deceptions and lies" of the timber industry, a critique of log exports, and a ground-level scene of a clearcut forest with a quote from William Shakespeare: "O

pardon me thou bleeding piece of Earth, That I am meek and gentle with these butchers.”

### **Pro-Timber Outreach**

Timber outreach dwarfed that of environmentalists during the period preceding the spotted owl listing; I will accordingly devote more space to this prodigious effort. This outreach had generally increased as the stakes were raised in the old-growth debate, culminating in a \$12 million, three-year long nationwide public relations campaign launched in August of 1989 by the timber industry. The industry portrayed their campaign as a response to the increased public interest in forest management issues, and the apparent effectiveness of environmental outreach over the last decade. One organizer said of the environmentalists, “I’ve never met anyone with less scientific information and fact that’s been able to dominate the media and program the masses.” This organizer cited the hard economic times of the early 1980s which caused many timber companies to lay off their public relations personnel, resulting in a critical communication gap in the latter part of the decade.<sup>8</sup> Of the \$12 million spent nationwide, some \$300,000 was earmarked for Oregon, and \$150,000 went to the Green Triangle Project. In addition to the national outreach program, other existing public relations campaigns cited include Weyerhaeuser’s “The tree growing company” ads and the Caterpillar Corporation’s film “The Continuing Forest,” for which they spent an estimated \$500,000. These projects are reviewed below.

The public outreach of the timber industry and its supporters was done in forms similar to that of the environmentalists, although at the time its national network was insufficient to generate mass mailings to potentially sympathetic recipients, so mail campaigns were used far less.<sup>9</sup> Its regional network, in distinction, was far better geographically distributed, especially in smaller communities of the Northwest, so newsletters and pamphlets were a prime medium. Regional outreach also included a number of newspaper, radio, and television advertising campaigns.

## **The spotted owl hoax**

The pro-timber coalition clearly differed with environmentalists on the status of the spotted owl, and emphasized their differences in public outreach. For example, the North West Forestry Association, a sister organization to the non-profit NFRC, produced a nine-minute video entitled “The Northern Spotted Owl: A View from the Forest” which looks in detail at the proposed owl listing (North West Forestry Association 1989). Over five hundred copies of this video were made, with one delivered to every member of the U.S. Congress and additional copies sent to the heads of grassroots timber groups. The videos were used extensively on a local basis for talks on the owl listing in Chamber of Commerce and similar meetings. Its theme was the failure of the U.S. Fish and Wildlife Service to look at all credible biological research on the owl.

The video features timber and wildlife specialists who argue that spotted owls can thrive in forests managed for timber production. Following discussion of “new” scientific evidence, the commentator concludes:

It can no longer be said that the spotted owl is limited to preserved tracts of old-growth for its survival. By maintaining existing preserved areas, and by slightly modifying cutting practices in future harvesting units, spotted owl habitat areas can be maintained indefinitely, allowing forests to provide the Nation with a sustainable level of timber production.

In addition to providing an alternative biological reading of the status of the owl, the pro-timber movement argued that the owl listing was being promoted by environmentalists as a tactic to “lock up” forests. They frequently quoted a remark in support of this position made in 1988 by Andy Stahl of the Sierra Club Legal Defense Fund: “The spotted owl is the wildlife species of choice to act as a surrogate for old-growth protection, and I’ve often thought that thank goodness the spotted owl evolved

in the Northwest, for if it hadn't, we'd have to genetically engineer it" (cited in Yaffee 1994, 215).

The spotted owl understandably generated a great deal of negative sentiment from people who opposed the listing and felt it constituted a threat to their livelihoods, resulting in a number of deliberate killings. In response, the pro-timber coalition distributed several flyers in rural communities urging people to restrain themselves and focus their attention instead on the environmentalists as the enemy.

Timber industry supporters also cited the owl as a means to express their desire for a "balanced" solution to the old-growth battle, as well as their distaste for the form of balance environmentalists proposed. Figure 3, for example, is the cover of an NFRC folder; Figure 4 reproduces the back page of a booklet distributed by the NFRC to timber-dependent communities, entitled "I'm Mad as Hell and I'm Not Going to Take it Anymore: A Resource Book for People Affected by Log Shortages." The booklet is filled with facts about the spotted owl, such as "Estimated numbers of spotted owls has increased from a few hundred ten years ago to almost 5000 today," and "The spotted owl does not rely on 'old growth per se' but on a particular vegetative structure" that can be created by careful management of second-growth forests.

### **The renewable forest**

Similar to environmentalist outreach, pro-timber outreach focused chiefly on forest management during the period between the proposed and final spotted owl listing decision. Yet their discussion rarely mentioned old-growth forests; instead, they unsurprisingly stressed the sound forest management practices of the timber industry. An example is the Green Triangle Project, a set of roughly 50 public relations television commercials aired statewide and particularly in metropolitan areas focusing on two themes: "Oregon will never grow out of trees" and "Oregon is timber country" (e.g., KVAL Television 1989a; 1989b). Another series was produced in 1990 by the Oregon Forest Industries Council, which represents private timberland owners who have some

dependency on federal forests. One OFIC ad spotlights replanting, a recurring theme in pro-timber outreach. It begins with a tree planter picking up his gear, then an aerial panorama of forests, with a whispered background saying, “Hundreds, thousands, millions.” This background continues as the scene shifts to a tree planting crew walking through a lush forest to begin their work. As seedling after seedling is placed into the soil, replanting statistics are shown on the screen: “1960: 60 million trees,” “1970: 81 million trees,” “1987: 97 million trees.” The ad closes with the caption “Oregon’s Forest Industries” and an aerial view of a dense young forest.

The Weyerhaeuser Company launched a series of print advertisements in 1990 that ran in newspapers throughout westside Oregon. One ad in the Weyerhaeuser series features a forester from Coos Bay who argues, “We aren’t running out of trees in my corner of the Oregon forest. Not now. Not ever.” He defends this position with figures: 7.5 million trees planted in Oregon every year, 1 million planted annually in the Coos Bay district, 300 to 450 seedlings planted per acre, only 2 percent of total forest holdings harvested every year. He also notes, “I’ve seen an increasing emphasis on management for a broad spectrum of resources including watershed protection, wildlife habitat, and scenic and aesthetic values.”

Other forms of pro-timber outreach ranged from a series of radio ads developed by the Associated Oregon Loggers to “put a human face on loggers” and aired on 35 stations across the state during baseball and football games, to a monthly magazine produced by the Evergreen Foundation, an strongly timber industry-sympathetic “advocate for science” in forest management disputes and distributed primarily through the Interstate 5 corridor running from Ashland to Portland, to a coloring book and tape for children narrated by Timbear, “a big friendly old bear whose job it is to guard the forest for all his human and animal friends.”

## LANDSCAPE CONSUMPTION: POPULAR RESPONSE TO THE PROPOSED OWL LISTING

### Public Comments

As mentioned above, over 20,000 comments were received on the proposed owl listing (U.S.D.I. 1990b, 26119). An overwhelming majority of these—over 80 percent—opposed the proposed listing (of which nearly four out of five were form letters prepared by pro-timber interest groups and simply signed or copied by individuals). This response, while not statistically representative of Pacific Northwest residents, suggests that many people from the region were strongly opposed to the proposed action, and also implies high reliance on facts provided by the interest groups who distributed form letters. All public comments are found in the Administrative Record to the FWS spotted owl listing decision (U.S.D.I. 1990a). They will be referenced below by record number.

Several dozen different form letters opposing the proposed listing were received by the FWS, most of which took issue with its biological basis. One form letter opposing the listing was sent by over 5300 people; it begins “A personal [sic] note to the U.S. Fish and Wildlife Service” and gives eight reasons not to list the spotted owl (#K.11).<sup>10</sup> Examples include “There is no conclusive scientific evidence that spotted owl populations are increasing or decreasing,” “An increasing number of spotted owls are being found in second growth timber stands, raising serious questions about the owl’s level of dependence on old growth,” and “Massive, natural disturbances—wind, fire and disease—are common....There is no conclusive scientific evidence that timber harvesting, which mimics natural disturbances, has adverse impacts on owl populations.” Another was sent by roughly 3250 opponents to the spotted owl listing (#3618). It requested an extension of the public comment period, arguing that “An independent survey is being conducted by wildlife biologists working on private, managed forestlands....Hundreds of owls are being found in a variety of habitats, which will prove the ‘threatened’ listing is unnecessary.”

Though fewer in number, personal letters were received by the U.S. Fish and Wildlife Service as well, most again opposing the listing of the northern spotted owl, though largely based on projected personal impacts. One letter reads:

I've spent all of my working life in the wood products industry.... Now, after around half of the forests have been set aside, groups of environmentalists are trying to stop or make it impossible for me to make a living in my owl homeland. This is not a fair or equitable situation and its balance must be changed (#I.6).

Far fewer form and personal letters supported the owl listing. They offer a very different reading of the status of the owl and related economic issues. One form letter was sent by nearly 2200 supporters, and reads in part:

I support listing of the northern spotted owl....It is important to note that the protection of the spotted owl protects an entire ecosystem....Rural economies should be maintained by prohibiting timber exports and managing forests for a sustained yield of various forest uses....Sacrificing the few remaining groves of ancient trees and the many species dependent upon them (including the spotted owl) will not provide permanent stability to the timber industry. Timber jobs have been lost to mill modernization and exports, not to environmental protection (#22663).

Similar to comments opposing the listing, relatively few personal letters were mailed in by supporters; these also focus on the precarious condition of the spotted owl.

### **Public Opinion Polls**

A number of public opinion polls were conducted in Oregon and the Pacific Northwest in the latter 1980s and early 1990s on the topics of spotted owl and old-growth forest protection.<sup>11</sup> A majority of Oregonians (over sixty percent, with two out of five agreeing strongly) felt that spotted owl protection was excessive, even before the owl was listed. Opinion was more divided over whether timber jobs should be protected at the expense of owl habitat: in 1990, 46 percent agreed and 48 percent

disagreed. Nearly two out of three Oregonians in 1990, however, opposed a halt on logging old-growth forests. Responses thus point to a strong public base of timber industry support in Oregon during this period.

Polls during this period also suggest that the public generally believed the timber industry position on ecological issues. For example, a majority disagreed that “Cutting trees ruins the habitat of the spotted owl,” with the largest subgroup disagreeing strongly. Also, a clear majority (nearly three out of four respondents) agreed that “Cutting trees is necessary to keep forests healthy and productive.” Their economic stance also was generally pro-timber as well, in that a majority agreed that cutting trees is necessary for the region’s economic health. The influence of pro-timber outreach is strongly evident in these results; additional polls confirm the degree of confidence people placed in the timber industry relative to environmentalists.<sup>12</sup>

Another statement in the 1990 survey elicited the opinion of Oregonians on the ISC owl conservation report. The statement reads, “To protect the spotted owl, we would stop logging on large tracts of federal timber land as recommended by the recent federal study, even if it means a loss of jobs.” The ISC report received strong overall public disapproval in Oregon, with only one out of three supporting it, and 44 percent strongly disagreeing with the statement.

Disaggregation of these results provides us with some idea of the social basis of support for and opposition to spotted owl protection. The results suggest that the spotted owl issue divided longtime rural working-class residents from younger and better-educated recent urban immigrants to the state—those who, according to Schwantes (1989), have increasingly flocked to the Pacific Northwest from California and elsewhere, lured by its environmental amenities. At the same time, the social base of the pro-timber coalition is quite striking: not only was there solid support in rural, timber-dependent regions such as southern Oregon, where nearly two out of three strongly disagreed with implementing the ISC recommendations, but the divided

opinion on the ISC strategy among urban residents, new residents and college graduates suggests some measure of support in these sectors as well.

In short, people from timber-dependent households did not necessarily respond according to their immediate interests, and some people whose interests were apparently less tied to the timber industry nonetheless supported it. It would thus be a mistake to divide supporters and opponents of owl protection based on some simple interests theory. The influence of timber industry outreach is unmistakable in these polls. What is more, their message on the spotted owl and its forests—and ultimately the moral landscape they produced to provide a meaningful interpretation of the owl, the forest and the trees—reached a broad audience. Though the pro-timber campaign lost the battle over the owl, it won the ideological war among a surprisingly large fraction of the Pacific Northwest.

#### **IMPLICATIONS: THE MEANING OF HABITAT**

A distinct set of meaningful patterns emerges from the pro-timber and environmentalist outreach and popular response reviewed above. I wish to discuss these patterns in terms of the kinds of meanings that were produced and consumed in the spotted owl and old-growth controversy and the nature of the moral landscape that resulted, ending with a few more general observations.

#### **Meanings Produced and Consumed**

##### **Intent**

In a broad sense, the environmentalist and pro-timber ideological outreach in the Pacific Northwest during 1989 and 1990 was fashioned in order to serve their overarching interests. For the environmentalists, the objective was to secure old-growth forest protection. The timber industry groups sought to protect their corporate interests, which were clearly threatened by the environmentalist campaign. Pro-timber

grassroots groups had a different set of interests: their concern was primarily for the economic stability of their local communities through continued timber jobs and revenues. The challenge to timber industry and grassroots groups was to maintain some sort of unified front against the environmentalists, as if their trajectories were parallel.<sup>13</sup>

One critical component of these broad objectives was to secure public support, which necessitated persuading laypeople not only to favor a particular set of policies, but more fundamentally to favor a particular moral perspective on the spotted owl and old-growth problem. The greater activity of the pro-timber coalition in the Pacific Northwest is understandable in that people of the region were seen to be more likely candidates for political and moral suasion; the environmentalist emphasis on a national audience reflects a differing appraisal.

### **Mechanism**

The ideological means by which environmentalists and the pro-timber coalition achieved these ends were complex. Some chief features included (a) legitimation/ delegitimation of the messenger, (b) prioritization/ marginalization of issues, and appeals to science and other sources of justification, and (c) universalization of the message to the audience.

The opposing bearers of news spent a great deal of energy legitimating themselves and delegitimating the other side. There was a particular dynamic between the two sides: the environmentalists seized the offensive in the spotted owl controversy, with a series of political victories most notably represented in the listing of the owl as a threatened species. Their challenge put the pro-timber coalition on the defensive, forcing it to justify recent timber practices in light of mounting evidence of their devastating impacts.

Curiously, this environmentalist challenge and the timber industry response hearkens back to debates of nearly a century ago, when timber barons were widely

attacked for their cut and run policies, and is not directly applicable to the controversy over the spotted owl and old-growth forests, as forests have not been replanted to produce more old-growth habitat, but to produce more timber. This points to the overriding mechanism of legitimation and delegitimation at work, as opposed to some simple difference of fact about the relationship between timber practices and old-growth forests.

The pro-timber coalition also worked to discredit its attackers. This was a key function of the grassroots groups; for example, when the OLC charged that “preservationists” were intent not on protecting the environment, but on driving people off public lands, the implication was that the timber industry was more concerned about people than the environmentalists. The grassroots campaign to delegitimize the greens was assisted by the timber industry, which took a more scientific approach in its counterattack. Examples include the NFRC’s critical review of the Wilderness Society’s old growth status report, and its charge that the Interagency Scientific Committee report was little more than a “theory” for preserving the owl.

Ecological and economic dimensions of human relations with Pacific Northwest forests dominated the spotted owl controversy, and were framed in quite different ways by the two major players in the debate. Environmentalists prioritized the destructive impact of humans on nature, while the timber coalition prioritized the reliance of humans on nature, resulting in often incommensurate messages marked by absences as well as presences. Environmentalists, for instance, showed timber-dependent communities in their ads as seldom as the timber coalition discussed reduction of old-growth forests. Language played a key role in prioritization and marginalization of issues. The environmentalists described forests of the Pacific Northwest using terms such as “old-growth forests,” “ancient forests,” and “virgin forests.” Their emphasis was clearly on that segment of the forest that had not yet been subject to human modification. The timber coalition on the other hand portrayed the forest as, for

example, “the continuing forest” and “the working forest,” and by emphasizing the word “timber.” “Oregon,” the series of timber industry ads read, “is Timber Country,” certainly not “The Land of Ancient Forests.” Weyerhaeuser, according to its motto, is “The Tree Growing Company.” Pro-timber magazines and newsletters were called “The Seedling,” “Evergreen,” and “Timber.”

The issues presented by both sides were justified by similar means, often involving science as an authority. The use of science was particularly evident in pro-timber outreach, which was put on the defensive by the science-based claims underlying the proposed spotted owl listing. For instance, the Northwest Forestry Association’s spotted owl video is replete with claims of wildlife biologists that spotted owls are in fact thriving in Pacific Northwest forests. “The Continuing Forest” emphasizes the application of “modern science” in contemporary forest management, and the use of “experts” to help make critical management decisions. A Green Triangle Project ad also emphasizes sound scientific management of forests, noting that “Before a single tree is harvested, studies are conducted by fish and wildlife biologists, forest engineers, soil specialists, botanists, and others.”

Science was by no means the only authority, however. Environmentalists relied heavily on the aesthetic contrast between old-growth forests and clearcuts in their outreach. In this same sense, the spotted owl, with its large eyes and fluffy feathers, was a perfect charismatic species to support old-growth protection. The pro-timber campaign, especially that of the grassroots groups, relied on appeals to common sense. Examples are numerous, ranging from the timber-affiliated organization called Common Sense, Inc. that distributes the “Timbear Unibearcity” tape and coloring book to the Associated Oregon Loggers ad that says the environmentalist message “makes the most noise, not the most sense.”

Pro-timber and environmentalist outreach aimed to universalize their message so as to appeal to as broad an audience as possible. For instance, environmentalists

emphasized that national forests belong to all Americans, not just the timber industry; one ONRC brochure reads “This land is your land...Help us save it.” The pro-timber coalition used a vast array of universalizing techniques to gain support. At the regional level, it portrayed its economic interests as not only central to the Pacific Northwest, but a part of its cultural identity. When a Green Triangle ad begins “For generations, people have worked hard on the farms and in the forests of Oregon,” the very identity of Oregonians is bound up in logging. The “I’m Mad as Hell” booklet distributed to timber-dependent communities by the NFRC similarly says “We can stand together and save our industry, our communities, and our rural lifestyle.” The pro-timber coalition appealed to a national audience by noting how all Americans consume wood and paper products, including such identity-laden items as the home (the “American Dream,” as commonly referred to in pro-timber outreach), and using wildlife symbols of national significance such as the bald eagle and grizzly bear in place of the spotted owl. The coalition often endorsed the multiple use concept of resource management as a way to portray itself as sensitive to the full spectrum of human interests with respect to forests. An Associated Oregon Loggers ad says “Using our forests doesn’t have to be an all-or-nothing proposition. With a careful, balanced approach, we can have a healthy environment, and a healthy economy.”

## **Outcome**

The outcome of the pro-timber and environmentalist outreach was mixed for both parties. The environmentalists secured a good deal of national support for their ancient forest cause as evidenced in their swelling ranks during the latter 1980s and early 1990s, but their message was far less effective in the Pacific Northwest, where a substantial proportion of people felt that the environmentalist position was extremist. The pro-timber coalition lost the battle of the spotted owl, but won the sympathy of many of the region’s residents, who trusted the industry position on forest issues far more than that of environmentalist groups.

What is striking in this pro-timber sentiment among the region's residents is that it was by no means confined to people from rural, timber-dependent communities. The timber coalition did an effective job of universalizing their message so that it made sense to a broad base of Oregonians as suggested in public opinion poll results. Their response in these polls indicates support both for the policies the timber coalition preferred and for the underlying ecological and economic assessment the coalition provided. Many people did not believe the scientific evidence that compelled the Fish and Wildlife Service to list the owl. They had heard that more and more owls were being found as surveys continued; they largely believed that the timber industry was taking adequate precautions to manage for wildlife in the forests. They knew that much of the state was critically dependent on the timber industry for jobs and revenues, and found little need to threaten the industry's economic role if little real scientific evidence existed that the spotted owl was imperiled. In these ways, production and consumption of the timber coalition message proved remarkably symmetrical.

### **The Moral Landscape of the Pacific Northwest**

The outreach and response characterizing the period of the proposed northern spotted owl listing in the Pacific Northwest was clearly concerned with far more than the owl itself. The ultimate focus of the debate was the moral landscape of the region as suggested in the relations between people and coniferous forests. The differentiated meanings people attached to this moral landscape emerged long before the spotted owl hit the news, providing a sedimented ideology interest groups invoked in their owl outreach, and people drew upon in their attempts to make sense of all the contradictory facts and figures these groups promulgated.

This moral landscape was more than a view of nature. Environmentalists did focus on the ancient forest a great deal, yet implicit in their argument is a sense of the proper boundary between humans and nature, of ancient forests as predating and existing

apart from humans, and thus a view of people is equally involved. The bulk of interest group outreach and popular response addressed the morality of interactions between people and coniferous forests, whether typified by destructive impacts or economic and social reliance. To the environmentalists, the plight of the spotted owl was suggestive of the tremendous destructive impact of logging on old-growth coniferous forests and associated wildlife. To the pro-timber coalition, a very different interpretation emerged, one in which logging mimicked nature's own extreme events that served to renew forests and allow vigorous young trees to grow where decadent old ones had once reigned. The two sides also differed as to whether the economic and material reliance of people on the region's timber resources justified continued logging of old-growth forests. Though the various moral landscapes that emerged contrasted markedly with each other, they were quite consistent internally. Few if any pro-timber supporters, for instance, argued that the heavy economic reliance of people on timber justified continued logging of old-growth forests in spite of recognized ecological impacts. Their position was a consistent one: people depended on logging, which at any rate did not do harm to the forest.

As a moral landscape, Pacific Northwest forests provided a sense not only of the good in nature and human relations with nature, but of the ways that the good is to be valued. There was, in other words, a decidedly axiological discourse at work in the spotted owl and old-growth debate, in which both intrinsic and instrumental-value arguments were employed. For example, the timber coalition's emphasis on the human benefits of sustainable timber production follows an anthropocentric argument, in which these practices are good as measured by their instrumental value to people. It was, of course, no coincidence that the timber industry provided strong support for anthropocentrism during the spotted owl controversy. The idea of nature as resource inherent in anthropocentrism is critical to the profitability of the timber enterprise; it

has allowed an onslaught of the forests of the United States that has transformed the ecology of millions of acres for the extraction of wealth.

The axiological basis of the moral landscape defended by environmentalists was more complex than that of the timber coalition, and in some ways contradictory. Their condemnation of old-growth destruction has been read by many commentators (e.g., Booth 1994) as a condemnation of anthropocentrism itself, as this ethic has effectively justified the conversion of old-growth forests to far more instrumentally-valuable managed timber stands. Indeed, it seems to be hard to justify spotted owl protection on instrumental-value grounds, as there would likely be few negative human consequences if owls were to go extinct. Yet environmentalists would be incorrectly characterized as wholly non-anthropocentric. For instance, their frequent point that national forests belong to everyone, not just timber interests, and their stress on recreational, aesthetic, and other instrumental values of forests to Americans all follow broadly anthropocentric logic. In many ways, the axiological position of environmentalists was subservient to their overarching interest of achieving public support for old-growth protection; they deployed whatever intrinsic and instrumental-value arguments were necessary to attract public sympathy.

The moral landscape, however, cannot speak for itself; people must represent it. In this sense, environmentalists portrayed themselves as the defender of the old-growth forests, setting up the timber industry as the enemy. Conversely, the pro-timber coalition exhorted people to trust it as the proper representative and caretaker of the forest. The messenger was thus closely allied to the message in the construction of moral landscapes during the spotted owl controversy; people accepted or rejected many of the characteristics of particular moral landscapes based on their assessment of the messenger.<sup>14</sup>

When a particular messenger and message resonated in the social identities, the meaningful lives of people, they would tend to listen and believe. The moral landscape

as they interpreted it also gave them a context to interpret the plight of the spotted owl, which then acted as a symbol of this moral landscape. To environmental sympathists, the owl provided sage though silent testimony to the beauty and goodness of nature, and the human foolishness and depravity of destroying the ancient forest. To timber industry-dependent communities, the spotted owl was a very different symbol, one suggestive of all the tree-hugging extremism and lack of human concern displayed by the environmental movement in its campaign to save old-growth forests.

### **Beyond the Moral Landscape: Larger Implications**

In many ways, the spotted owls of the Pacific Northwest were caught in a struggle for ideological control between environmentalists and the timber industry. This struggle spills far beyond the region: indeed, American forests have long been a contested moral landscape (Hays 1959; Nash 1989; Williams 1989). Yet, for all the magnitude of the questions under scrutiny in the context of the spotted owl debate, both sides offered a decidedly shallow response.

The environmentalist critique indeed constituted a resistance against many of the taken-for-granted timber practices that had long been deployed in the Pacific Northwest; yet it generally avoided challenging the commodifying social and human-environment relations embedded in industrial capitalism which must ultimately be held responsible for the precarious position of forests, forest-dependent animals and forest-dependent communities alike in the region (Foster 1991). The kinds of meanings that pervade the kind of environmentalism that prevailed in the Pacific Northwest are decidedly partial meanings. They are primarily effective as means to arouse anger among sympathists against the desecrators of the ancient forests and its nonhuman inhabitants; they are less effective in answering the question of how humans fit into the moral landscape, and decidedly ineffective in explicating the political terrain in which this landscape has been cast.

For its part, the timber industry's ideological defense of completing the commodification of nature in the Pacific Northwest, cloaked under the guise of sound timber management, community well-being, and even environmental concern (in spite of its shaky biology and ecology), is understandable from an interests perspective, but clearly offers even less in the way of vision than the environmentalist critique. The massive resonance the pro-timber outreach campaign received among Pacific Northwesterners betrays ideological vulnerability as much as an affinity of interests. In fact, this groundswell of anti-listing sentiment against the spotted owl suggests the extent to which the democratic ideal of open public discourse on such important decisions as the owl listing can be quite readily twisted by distorted, convincing meanings.

The environmentalist resistance to wholesale habitat alteration, and the pro-industry defense of resource extraction, are now bundled under much larger ideological campaigns, such as the pro-extraction "wise use" movement, which has gained great strength in the U.S. West and the halls of Congress (Echeverria and Eby 1994), and the global-scale biodiversity conservation movement, which aims to protect species and their habitats worldwide from destruction by human hands (e.g., Burton 1991; Krattiger et al. 1994; Heywood 1995). Similar to the spotted owl case, these larger movements will in many cases use animals to represent their agendas of meaning.

Indeed, discourse has already shifted in the Pacific Northwest. Though the old-growth forest debate has continued, the spotted owl has effectively receded from the forefront—in part because people are tired of talking about the owl after such sustained prominence during the latter 1980s and early 1990s. The animals that now occupy the spotlight include the marbled murrelet, an elusive bird that inhabits coastal forests, and salmon and other anadromous fish species that periodically migrate up forested streams to spawn (U.S.D.A.-U.S.D.I. 1993). These animals too will become bound up with the contested moral landscape of the region's forests, once more intermingling

habitat and ideology in the geography of the Pacific Northwest. But the divergent meanings people of this region attached to the spotted owl and its habitat will probably persist in the American consciousness for some time. Like the diminutive snail darter—that mid-1970s symbol of endangered species protection in the extreme—the spotted owl, threatening and wise, will long remind people of the wisdom and the threat of preserving nature.

### Notes

<sup>1</sup>The management indicator species concept was introduced via the National Forest Management Act (NFMA) of 1976, which was the first piece of legislation that mandated concern for protection of biodiversity on U.S. national forests (Grumbine 1992, 101ff.). The idea was that NFMA regulations could be adhered to more efficiently by measuring success in terms of the status of MIS populations. This designation of the spotted owl follows 1982 revisions to the NFMA.

<sup>2</sup>The term is not original; other geographers have employed it as a means of focusing on the complex values embedded in particular landscapes. This is, for instance, the general intent of David Ley in his discussion of cooperative housing and postmodern landscapes in Vancouver, B.C. (Ley 1993). Ley's conceptualization of moral landscapes is, however, unfortunately brief. Recent use of the related term "moral geographies" has been reviewed by David Matless (Matless 1995, 396-397).

<sup>3</sup>A more detailed presentation and analysis of these materials is found in Proctor (1992). All unpublished materials and interview notes are in possession of the author.

<sup>4</sup>An excellent discussion of the spotted owl listing is presented by Steven Yaffee (1994).

<sup>5</sup>In essence, it appears that the fate of the owl in 1987 was apparently determined in advance by top Interior and FWS officials; biological evidence supporting a listing decision was ignored and in fact deliberately omitted (G.A.O. 1989).

<sup>6</sup> A formal evidentiary hearing would take much longer (up to a year or longer) than a

hearing under the informal structure already used by the FWS. It would involve using a judge as hearing officer, with all parties represented by attorneys and all testimony subject to cross-examination. In addition, witnesses may be subpoenaed under this structure.

<sup>7</sup> The NFRC has, however, not escaped scientific scrutiny itself, having been the target of accusations that it deliberately misinterpreted scientific findings to support its position opposing the owl listing. For example, a letter dated June 1 1990 from Joseph S. Meyer, Mark Boyce and Larry Irwin to the law firm representing the NFRC disputed the NFRC claim, which cited their ongoing research, that if owls have a core area of 500 acres of suitable habitat, fragmentation of the surrounding landscape does not appreciably affect their reproduction or behavior (U.S.D.I. 1990a, index II.C.66.a). In fact, their research suggested that site selection was most strongly affected by the core area of roughly 500 acres, but also influenced by habitat quality in an area as large as 8800 acres.

<sup>8</sup> Timber industry public relations campaigns, however, far predate their media blitz of the latter 1980s. Pyle (1986, 152ff.) offers a critical review of outreach spanning the last several decades.

<sup>9</sup>This is in all likelihood no longer the case, as the wise use coalition has taken on a national stature and developed a strong organizational alliance in order to address policy concerns such as the Endangered Species Act reauthorization and private property rights (Echeverria and Eby 1994).

<sup>10</sup>No record number is available for this letter; the code corresponds to the Administrative Record Supplemental Index heading.

<sup>11</sup>One of the first comprehensive surveys of Oregonians on these issues was conducted by Griggs-Anderson Research for The Oregonian newspaper during June 1989 (Griggs-Anderson Research 1989); much of this survey was largely repeated by the same firm in May of 1990 (Griggs-Anderson Research 1990). These two surveys thus span the public comment period on the proposed owl listing. The surveys involved randomized telephone interviews of 400 (1989)

and 600 (1990) Oregon adult residents, with sampling errors of 4.9 percent (1989) and 4 percent (1990). In addition, the timber industry commissioned several public opinion polls in 1990 and more recently in order to optimize their outreach campaign. One example is a survey administered by the Nelson Report (1990) designed “to identify the windows by which the [timber] industry could discuss its issues with the general public in a way that would be meaningful and effective.”

<sup>12</sup>Results of the May/June 1990 Nelson Report survey suggest that Oregonians generally trusted the timber industry far more than environmentalists (Nelson Report 1990). For instance, most respondents believed that “Oregon’s forest industry has a sincere concern for the responsible management of the state’s forest,” and most agreed that “Environmental groups have been irresponsible in their positions regarding the forest industry.” More recent surveys commissioned by or on behalf of the timber industry have generally corroborated this confidence in the timber industry (Cambridge Reports/Research International 1991; KOIN Television 1991).

<sup>13</sup>As William Robbins has argued, these interests have rarely coincided in the region’s history: when logging proved unprofitable, the timber industry would move on, leaving dependent communities behind (Robbins 1985; 1987). This historical evidence reveals contradictions inherent in the timber industry’s position that their intent stretches beyond the realm of corporate profit.

<sup>14</sup>This is a common argument made in science studies literature; for a discussion see Wynne (1991).

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