

Natural Areas Report

Vol. 11, No. 1

Summer 1999

Natural Areas News and Information Exchange

The Future of RNAs

With this issue, we end the Natural Areas Report. For more than ten years, this publication has reported the challenges and accomplishments of natural area programs throughout the nation. By knitting together a network of state, federal, private, and university-based natural area programs, we found wisdom in numbers. We surveyed managers to learn the most effective methods to control exotic species, or develop a long-term database, or form interagency partnerships. We examined the importance of cultural resources within natural areas, and considered the role of natural areas in

larger bioregional assessments.

Throughout our tenure, the Natural Areas Report found support from the Forest Service regional RNA programs, the Washington Office of the Forest Service, and the Oregon State Office of the Bureau of Land Management. Support came even when program funds were tight. Now funding for natural area programs is stretched to the breaking point, as managers across the country attempt to provide a baseline of natural conditions for research, monitoring, and teaching, at the same time holding at bay the consequences of encroaching development.

The Natural Areas Report began as a publication for the Northwest, and quickly grew to cover the nation. It is appropriate that with this last issue, we come back to the Northwest, and consider the changes we have seen. What does the future hold? In this issue, we take a hard look at the future of the Research Natural Area program in Region 6 of the Forest Service. Sarah Greene, long-time RNA coordinator in the Pacific Northwest, reflects on her twenty years in the trenches, and several natural area veterans respond with their own thoughts about the future of the federal RNA program.

Research Natural Areas, a personal reflection from Oregon and Washington

In March of this year a number of intrepid co-workers and I braved steep slopes, snow, rain, and large expanses of blowdown to do the 20-year remeasurement of 44 permanent plots in the Neskowin Crest Research Natural Area (RNA). This event was significant to me for several reasons. In 1979, I was part of an equally intrepid, but much younger, team of co-workers who established the plots at Neskowin Crest. If you had asked me in 1979 if I would be around 20 years later to remeasure these plots, I would have thought it seemed very far away and somewhat dubious. But I am around, albeit much weaker in the knees, and the twenty years, which did not take very long to pass, have provided an opportunity to reflect on the RNA program in Oregon and Washington during that time, to discuss persistent problems with the program, and speculate on the future.



artist: Margaret Herring

Initially, Forest Service RNAs were meant to protect examples of important forest types. This concept evolved over time to include aquatic, range and other non-forest types, which became more finely described based on evolving vegetation classifications. Although the importance of protecting these various community types was a precursor to protection of biodiversity, the emphasis has always been the use of RNAs for research and collection of baseline data. Neskowin Crest RNA protects fairly typical natural stands and several different plant communities of Sitka spruce-western hemlock forests and has yielded 20 years of baseline data on tree growth, mortality, biomass production, and the effects of wind disturbance. Thus, establishment of the Neskowin Crest RNA in 1941 and its 20-year-old plots represent the essence of the RNA program.

Getting Started

It makes sense to divide my experience with the RNA program into three parts. To begin with, I must emphasize that I inherited a well-established RNA program. When I began, the Pacific Northwest Research Station was actively participating in the program, as were the National Forest System, Bureau of Land Management, Department of Energy, National Park Service, U.S. Fish and Wildlife Service, state heritage programs and The Nature Conservancy. Members of this group had worked together, some since the early 1960s, to define a list of needed RNA cells and to identify and establish areas across various land ownerships, tasks which they continue to this day. Permanent plots had been established on numerous RNAs throughout the region and active research and/or monitoring were ongoing.

In the early 1980s, soon after I became involved with the program, the emphasis was on identifying proposed RNAs to be included in the forest planning process. This was the first time in the program that RNA identification and establishment across the region would be dealt with in a somewhat organized and systematic framework. There was always pressure to meet planning deadlines which the plans themselves rarely met. What started to be a three-to-five year process ended up, in some cases, to last over ten years.

Personally, the search for RNA candidates and the challenges of fitting them into the forest planning process was the most gratifying work for me. By sheer doggedness, the RNA program was addressed in all forest plans. I was out in the field nearly half my time, generally trailing around behind a Forest Service area ecologist. I became familiar with much of the region, albeit once over lightly, and met many district people who were doing fieldwork back then. It was at this time that local support of the RNA concept and program was most forthcoming.

The search for RNA candidates was usually constrained by the existence of past or proposed timber sales and grazing impacts, and sometimes pre-existing recreation use and mining conflicts. Though many viable areas were identified, they were small, due to the vagaries of the region's timber program. In the face of stiff competition with timber and grazing, it was a struggle to convince onsite managers of the importance of the RNA program to the Forest Service and to natural resource management.

Life After Forest Planning

The second part began once the long and arduous task of forest planning was completed. Though this did not end new RNA identification, it did mark the beginning of the formal establishment process for over 90 proposed RNAs within Oregon and Washington. Writing establishment records involved the

need not only to gather more ecological information, but also the need to face management problems and conflicts, redraw boundaries, deal with new proposed timber sales and grazing allotments, make RNAs a higher (and in some cases an entirely new) work priority, educate a cadre of new forest RNA coordinators (most of whom had this added to an already full workload), and, finally, add another level of unanticipated NEPA analysis. All of this took time and money, both in short supply. In 1991 the Washington Office of the Forest Service stepped in to help.

For fiscal years 1992-1997, the Washington Office provided seed money to RNA programs throughout the country. In the grand scheme of things the amount of money they provided was minimal, but it served to leverage even more funding from other sources both inside and outside of the Forest Service. This combined funding helped to accomplish many valuable things for

the RNA program, nationally and regionally. Numerous RNAs were established throughout the country, research projects were initiated, baseline monitoring begun, local RNA coordinator programs set up, and in some cases, positions for regional RNA coordinators established. In Oregon and Washington, all but the last were important accomplishments facilitated by the Washington Office money.

The Present

The number of established RNAs in the region has almost doubled since I began, and if all proposed areas were to be established it would triple the size of the system. Average size of RNAs has increased from around 700 acres in the early 1980s to over 1,000 acres in the late 1990s. Guidelines, developed by the regional RNA committee to help write RNA management plans, are being used in

numerous cases where management plans are required. The number of research and monitoring projects on RNAs has grown considerably, not only in number but in complexity and variety of data collected. Research runs the gamut from studies of individual species to a comprehensive study of old-growth forest processes using an industrial crane to access the forest canopy.

We have developed monitoring protocols for studying changes along ecotones, and permanent sample plots are followed and remeasured in over twenty RNAs throughout the region. Prescribed fire has returned some areas to a semblance of seral conditions, and long-term plans for future prescribed fires are in place. Active management to control exotic species occurs in several areas. An RNA database, initially funded by the Region, tracks and stores general descriptive information of all kinds as well as the research and monitoring data.

Persistent Concerns

Despite all these positive aspects, the RNA program in Region 6 is just barely holding its own. The problems with the



artist: Margaret Herring

program are not new nor are they unique to this region or even to this program. I do not think they will disappear in the near or even distant future. A brief discussion of them follows.

1. Funding

The RNA program historically has existed on a shoestring. The 1992-1997 era of Washington Office support is the only time this shoestring has looked anything like a climbing rope.

The ultimate goal of the Washington Office money was to give each Forest Service Region and/or local Research Station a boost to get their individual RNA programs on a solid enough footing, so that when the Washington Office money went away, each individual RNA program could exist on its own. Unfortunately this goal has not been attained. Individual funding of the RNA programs has not continued in many regions. There is only one region in the country with a full-time RNA coordinator, and only two other regions have part-time positions devoted to the RNA program.

Since the completion of the first round of forest planning, the cost for writing establishment records and doing the required NEPA analysis has risen at least three-fold. Like all programs in a large organization, RNAs have become enmeshed in a large amount of process and paperwork requirements that involve more money and more staff time. The workforce in Region 6 has decreased by 30% and funding for the program is close to non-existent.

2. Core of Support

Locally, at the District level, is where one generally finds the most interest and concern for RNAs. Yet it is at this level where people are most likely to be over-worked, where priorities have been set from above and usually driven by some kind of legal mandate. It is a rare case when these priorities include Research Natural Areas. There are people scattered throughout the region who believe strongly in the RNA program despite its lack of financial support and its low priority. Without these people there really would be no program.

3. Confusion over mandate and goals

The Forest Service Manual states that the objectives of RNAs are to provide a wide spectrum of pristine representative areas, maintain biological diversity, serve as reference areas, provide onsite education activities, serve as baseline areas for long-term ecological change, and monitor the effects of resource management techniques. There continues to be a misconception that all these objectives should be found at each site, despite the fact that some may conflict. Many people have interpreted the term *pristine* too literally, resulting in some viable areas which were not considered as RNA candidates or hindering active management in areas where it is necessary. Perhaps it would be better to consider what ecological states we want for study or for management or to have arrayed across the landscape, rather than to search for what is *natural* or *pristine*.

4. Research direction

A not insignificant portion of people otherwise knowledgeable about RNAs think that these areas are the purview of the research branch of the Forest Service, and if they are not being used for research, then why bother having them at all. One wonders if dropping the word *research* from the name might improve the situation. The kinds of research that are allowed in RNAs are quite restrictive. Though there are some good reasons for this, in some cases research which likely would have had little impact on the RNA was not allowed to proceed. This has served to discourage future research use on some occasions.

5. Management problems

Despite increased awareness of the RNA program, there is still a perception that RNAs are to be left as is, not touched or manipulated; there is a perception that RNAs and the ecological processes therein are static. Consideration of management actions or even modest protection measures is often difficult.

Yet, the spread of exotic species poses serious threats to RNAs. The consistent rise in recreation numbers has impacted and compromised the viability of many aquatic and meadow features in RNAs. The results of 80 to 100 years of fire suppression have left in doubt whether the seral conditions that many RNAs were meant to represent actually exist on the sites any longer. Though creative solutions sometimes can be found to deal with these complicated management problems, there is often either no money available or prohibitions in the Forest Service Manual stand in the way.



artist: Margaret Herring

6. Size

The small average size of RNAs (1,000 acres) continues to be a nagging problem. Will these areas be able to sustain themselves against the onslaught of exotic species and the use of herbicides on adjacent lands? Are these areas too small to ensure the viability of predator-prey relationships, even those with small home ranges? Are these small areas, islands of natural acreage, viable when surrounded by a fragmented landscape managed for a myriad of commodity purposes? How viable are these small areas if the natural fire regime has been suppressed or exotic species are replacing native ones?

The restricted size of RNAs can work well to protect single plant species, and oftentimes to protect examples of plant communities. But are these areas large enough to encompass the ecological processes needed to maintain community stability and/or change, including disturbance processes? Can we honestly look at these areas and call them controls? If the answer is no, then we need to either re-examine the objectives of these areas or acknowledge that a much less-than-perfect system exists.

7. Northwest Forest Plan

The implementation of the Northwest Forest Plan in Region

6 has changed how some managers perceive RNAs. Because designations such as Late Successional Reserves and streamside buffers have removed much land from timber harvesting, some managers see a much less pressing need for RNAs, especially now that there is a broader landscape focus for management. The RNA program, though, does protect a greater variety of types than are protected by the Northwest Forest Plan.

Some thoughts on the future

Given the ubiquity of these problems and the unlikely event that they will disappear, what does the future look like for RNAs in this region? A number of scenarios are possible, some with more positive outcomes than others. I discuss these, beginning with the most pessimistic and ending with what I think is more possible and more optimistic.

The first scenario for the future is to acknowledge that only lip service support is being given to the program in Region 6 and dissolve it all together. Certainly to do this would be to negate all the research and monitoring work that has been done to date; it would discourage those souls in the field who are working to make the program viable; it would likely turn valuable natural area lands back into the timber base. Given this scenario I think one would argue that lip service support is better than none at all.

A slightly less drastic scenario would be to keep only those RNAs that are being used, disestablish the rest, and establish no more new ones. This may be a little like spending all your hard-earned cash now, saving nothing for a future emergency. Just because an RNA is not being used for research or monitoring does not mean it has no value. It is impossible to anticipate all the possible research/monitoring uses for RNAs in the future. Besides, disestablishing RNAs closes our options for the future and shrinks the available land base for future research and learning.

A third scenario is to keep pursuing money as a way to save the program. But given priorities, budgets, and personnel

reductions in the region, the possibility for increased funding seems very unlikely in the coming years. Budgets fluctuate through time, so a more flush era may eventually return. Betting on when is not possible at this point, though.

Given the limited time, money, and people power available to the program, I advocate a scenario of benign neglect, where we choose our battles carefully. Many RNAs probably will be fine left to their own devices, especially those in high elevation areas, areas that are not easily accessible, areas that have a long fire return interval, and areas that exist within Wilderness. Time and energy would be best spent on sites with active research, long-term monitoring, and/or local advocates. However, local advocacy can be an ephemeral thing, so support for those areas may change over time. If time or money becomes available, a kind of triage should be devised to decide which threatened areas deserve the most attention. Management plans would be written only for those areas that have the most complex management problems.

For those proposed areas that are not yet established, the same criteria should help set priorities for their establishment. Proposed RNAs with local advocates or existing research/monitoring projects should be the first to receive establishment efforts. Proposed areas with serious threats or management problems should be carefully screened to decide if precious time and energy should be spent on their establishment.

After considering my experience in Region 6, I think that the future of the RNA program ultimately may rely on the same energy from creative, dedicated people that has carried it all along. We asked a number of those people to comment on what they think

will be the strongest future source of support for the Forest Service's Research Natural Area program. Their considered opinions follow.

Sarah Greene

RNA Scientist, Pacific Northwest Region



artist: Margaret Herring

John Humke, Vice president/ Director of Agency Relations for The Nature Conservancy. In 1989 he chaired a committee appointed by the Chief of the Forest Service to review the Research Natural Area establishment process. He has been active in USFS/TNC partnerships to establish RNAs in Regions 2 and 9 and nationally.

Considering what will be the strongest source of support for the Research Natural Area program in the future, I believe that supporting programs is not nearly as important as supporting purposes. The RNA program was created by people of vision to accomplish several important purposes ranging from

research and monitoring to maintaining biological diversity. There is abundant evidence to suggest that ecological research, especially monitoring, and certainly maintaining our natural heritage remains a top priority for the USDA-Forest Service. In March, 1998, while announcing the Forest Service's Natural

Resource Agenda for the 21st Century, Chief Dombeck said, "we must continue our long tradition of protecting wild areas, such as wilderness, so they can remain important reserves of clean water and biological diversity." A year later, in a speech to the North American Wildlife and Natural Resources Conference, Dombeck stated, "wild places and natural areas are of increasing importance to a society that can afford to protect them." The just-released USDA Committee of Scientists Final Report on the Forest Service's land and resource management planning process calls ecological sustainability a necessary foundation for stewardship and states that, "conserving habitat for native species and the productivity of ecological systems remains the surest path to maintaining ecological sustainability." The Committee suggests a strategy that includes, "monitor the effectiveness of this approach in conserving native species and ecological productivity."

It appears that the main purposes for which the RNA program was established are alive and well. Why then is the RNA program in serious decline? There are many reasons that seem to add up to the fact that, in spite of valiant efforts of many people (and I proudly include myself on this list), the RNA program is not viewed by the management of the Forest Service

as a principal program to accomplish these purposes. What to do? Pursue the purposes, not the program, and perhaps the program, or some enhanced version of it, will re-emerge.

Has the need for monitoring sites to measure ecological sustainability disappeared? I don't think the USDA Committee of Scientists would say so. Has the need for natural areas to maintain biodiversity disappeared? I don't think Chief Dombeck would say so. Ask the district ranger, the forest supervisor, the regional forester, or the new chief operating officer what the role of monitoring and research sites will be in measuring ecological sustainability or what the role of natural areas will be in maintaining biodiversity, and I think that well-informed answers will have a familiar ring. And when you ask what existing USDA-Forest Services programs have historically accomplished these purposes, the RNA program will be among the answers. Does that mean that the RNA program can do this job as it is presently structured and staffed? I don't think so. But the RNA program provides a fundamental starting place. The future of the RNA program will depend upon how well its accomplishments can be incorporated into the strategies for these present, but not new, purposes.

Karl Stoneking is Regional Silviculturist in Region 8 of the Forest Service. He has been a member of the national RNA coordinators' committee for over 10 years.

RNA establishment and management activity has been cyclic since the program began more than seventy years ago. During the 1930s and 1940s, most activity was focused on evaluations and establishment. After this initial work, little happened in the program until the mid-1970s, when a new round of RNA establishment and management activities occurred. The program languished again until the late 1980s, when the first Forest Land and Resource Management Plans (Forest Plans) were required to address the RNA program. All these past periods of RNA activity have faced the same major problem that is faced today, the problem of funding. However, the founders of the RNA program established a high degree of permanency for RNAs, both in their establishment and in retaining their RNA status. Throughout these periods, the RNA program has grown both in numbers and in use. This growth has been most significant since development of Forest Plans, whose goals and objectives have been somewhat effective (more for some Forests than others) in recognizing the potential of the RNA program as an integral part of the total National Forest management.

Due to a generally fixed NFS land base and multiple use goals, the opportunities for increasing the number of RNAs on National Forest System land are becoming very limited. How-

ever, the opportunities for using RNAs have just begun to be explored. We know a great deal more today about plants and the environmental components that influence their presence than what was known when the RNA program began. The first RNAs focused on the forest in terms of commercial tree species and volumes. A decade ago, the focus of many RNAs was on rare plants and their communities. Today and tomorrow, the whole set of plant communities—common and rare—in an RNA and their relationships to the larger landscape in which it resides will be the focus for RNA use. Information about undisturbed and non-human disturbed plant communities is increasingly important, and is where the future lies for RNAs and the RNA program.

The strongest source of support for future RNA program lies with the Chief of the Forest Service. Funding will continue to be a problem, especially when the National Forests are expected to do so many things for so many people with increasingly tight public money. Limited funding will force priorities and it is under this condition that the RNA program must operate. Those RNAs which contribute more toward making good land management decisions hold the keys to keeping the RNA program an active part of the management of National Forests.

Angie Evendon was RNA Program Coordinator in Regions 1 and 4 for the Forest Service. She retired from the Forest Service in 1998 and works as a contract botanist and conservation planner.

Good work has been accomplished on RNAs during the past couple of decades. However, despite all of the new RNAs established and all the research and monitoring projects initiated, we have not been successful in securing broad based institutional and public support for RNAs. In my experience working with RNAs in R1 and R4, we always had our hands full with establishment and management work, and we did not take the time to develop adequate understanding and integration of RNA work with other agency and external programs. Hence, the RNA program was pushed to the sidelines.

With essentially no vocal constituency, it is no surprise that the Forest Service does not place a priority on RNAs. In my opinion, the largest constituency does not lie within the research community (as the name would imply), but rather with those individuals most interested in ecosystem conservation and management. The importance of natural areas (of all kinds) as reference areas and biodiversity conservation areas has long been recognized, and many RNAs are located in portions of the landscape where other types of protected areas are lacking. In Northern Idaho, for example, the RNA system contains the last vestiges of once extensive, low-elevation productive forest types. The complementary role of RNAs to other types of protected areas and reference areas needs to be more widely recognized and valued.

I think that the strongest future source of support for the RNA program lies in individuals and organizations that are presently unaware of or are inactive in the RNA program. I

would hope that before the RNA program is relegated to a position of "benign neglect" that a concerted effort be implemented to reach out to external RNA partners at a national and local level, with the explicit purpose of conducting a focused dialogue on the future direction of the RNA program. Ideally, this type of outreach would extend from the Washington Office as well as other levels in the organization. Potential partners to include in such a dialogue would be: the international and national conservation community, such as the International Union of Conservation and Nature; many major national conservation organizations such as The Wilderness Society, The Nature Conservancy, and National Wildlife Federation; professional organizations such as Ecological Society of America, Society for Ecological Restoration, Society for Conservation Biology, and Natural Areas Association; monitoring institutions such as World Conservation Monitoring Center and federal agency monitoring programs; and special conservation initiatives such as Partners in Flight and National Native Plant Conservation Initiative, among others.

It is important to view RNAs as one approach to meeting the many conservation, monitoring and research reference area needs in the Forest Service. Forging stronger ties with the types of partners mentioned above could in time bring about a different, more positive response from Forest Service leadership toward RNAs. More active partnerships outside the agency in time would result in communication back to the Forest Service on the importance of RNAs and leadership would likely change their position to one of active support.

Dick Vander Schaaf works for The Nature Conservancy in the Oregon State Office doing public lands protection and conservation planning. He is a member of the Pacific Northwest Region Interagency Natural Areas Committee, and has done RNA work with all federal agencies in the Pacific Northwest.

For all the stated reasons why the program seems to be languishing, an independent observer might surmise that indeed RNAs no longer fit in the new paradigm of ecosystem management, and should therefore be redefined. I think the danger with this analysis is that while the program may need a new direction, the existing and proposed RNAs continue to have real value to the protection of biodiversity. Even with their average small size, these sites epitomize the best natural areas on federal lands and carry some of the most protective designations available. One organization, The Nature Conservancy, is betting much of their future conservation plans on the continued role of RNAs in the conservation landscape.

A few years ago the Conservancy asked itself the difficult question, "are we being successful at protecting biodiversity?" Finding the answer less than satisfying, the organization embarked upon an ambitious program of ecoregional-level planning

aimed at being more effective and efficient at conservation. Existing protected areas, most of which are RNAs, factored in prominently in these ecoregional conservation plans, and often were the "seed" sites for larger conservation areas in the plans.

The Conservancy recognized that RNAs had many programmatic values as well as the obvious natural values. Perhaps the greatest value of the RNA program has been its longevity (nearly 70 years), and its continued ability to adapt to new thinking in the evolving field of conservation biology, with sites designated around watersheds and encompassing ecological processes. The interest RNAs are generating in the general public has resulted in a new constituency for RNAs, an educated public that values the protection of natural areas for their contribution to conserving biodiversity.

While the RNA program may be currently languishing in the Forest Service where it began over half a century ago, there

are other avenues of support such as conservation organizations, other federal agencies and the public which can and should be ready to promote the program. This promotion can take the form of cooperative inventories on RNAs, joint management of certain areas, and taking more responsibility for maintaining the network of RNA managers that has been one of the unsung strengths of

the program. It is inevitable that USFS funding and support for RNAs will ebb and flow over time, but it is incumbent upon us supporters not to lose sight of the great value that is inherent in RNAs and the role they will continue to play in the conservation of biodiversity in the US.

Will Moir is a Research Forest Ecologist with the Rocky Mountain Research Station in Flagstaff, AZ. He has been associated with the RNA program in Colorado, New Mexico and Arizona for the last 20 years, and was an RNA Summer Scientist in the Pacific Northwest in the early 1970s.

While I am in doubt about the future of Forest Service Research, it is possible that RNAs will have some significance to scientists in the private or educational sectors. Scientists will have a voice in promoting RNA values, and private agencies, such as The Nature Conservancy, will continue to promote the federal RNA program. The future of the federal RNA program will be determined by users. These will include members of the public who view RNAs as elements of landscape diversity or value them for their educational, recreational, and cultural values.

It will become increasingly clear that the RNA system harbors only a small fraction of biological diversity from either genetic, species, or landscape perspectives. However, that small fraction will be valued, and RNAs will be championed by future enthusiasts, along with Wilderness and Park reserves, as vital

elements of landscape diversity. I anticipate serious deterioration of some RNAs, especially at genetic and population levels, as a result of their increasing isolation in the urbanized and fragmented landscape and attendant boundary threats.

For the RNA system to survive, it will need strong direction. It will require articulate and politically effective champions who argue that RNAs, whose original values may have declined (for example, by plant succession), may continue to serve as important diversity areas; proposed RNAs which do not necessarily meet current RNA standards must nevertheless be designated for development into late seral ecosystems. These proposed RNAs will be considered in large-scale landscape analyses, where connectivity by riparian and other kinds of biological corridors are identified, and adverse human impacts are resisted by statutes, administrative mandates, strict enforcement at Ranger Districts, and a watchful public.

Reid Schuller is Executive Director of the national Natural Areas Association. Before that he worked as natural areas scientist for the Department of Natural Resources in Washington. He was an active member of the Pacific Northwest Region Interagency Natural Areas Committee.

It is somewhat ironic that the glare of lights from "ecosystem management" is contributing to a lowered profile for the RNA program. While the paradigmatic shift toward a landscape perspective for resource management is a definite improvement, it carries mixed implications for programs small in dollars and acres. The tendency is to overlook RNAs and the very real contributions they can and do make in research opportunities, educational venues, and as "pods" of biological diversity.

It is widely recognized that the US Forest Service played a formative role in the development of the RNA system in Washington and Oregon, and continues as a central force in the Northwest Interagency Natural Area Program. All the partners in the Natural Area Committee have a substantial stake in the continuation of the RNA program, and strong support will continue from outside the Forest Service, from other agencies and organizations involved with natural area designation and management.

Increasingly, I see a broad cross-section of educators supporting and making use of RNAs. These will include everything from high school biology classes through graduate

level courses, and will help reduce the misconception that the RNA program is only for a few, research-oriented individuals.

Perhaps the most incalculable future support, however, may come from local advocacy groups and individuals. As human population and development continue to increase, people are increasingly drawn to natural environments, including RNAs. Organized groups have the potential to provide support through volunteering for management and monitoring projects. If conducted with a strong emphasis on protection of the ecological integrity of RNAs, citizen participation could lead to development of a strong local support network for the program and its local sites.

The ideas of partnership, collaboration, and citizen participation are at an all-time high within the Forest Service, and it is unlikely that this will be a fad. However, the involvement of local advocates will not occur without active participation by the Forest Service, both in terms of time and money. Traditional support from other federal and state agencies, conservation groups, researchers and educators will continue. Volunteers provide one way for this support base to be expanded.

Jerry Franklin is a professor in the Division of Ecosystem Sciences, College of Forest Resources at the University of Washington in Seattle. He has been involved in the RNA program in the Pacific Northwest since the early 1960s. He is responsible for the establishment of many RNAs in the region.

The future support for the RNA program has to come primarily from the community of scientists and educators. This system of natural areas was designed specifically to provide for their needs, as representative and excellent examples of the important natural ecosystems for non-destructive scientific and educational uses. For the system to survive and prosper it ultimately must be utilized by those for which it was designed! The bottom line, as I learned many years ago, is: use it or lose it!

The scientific and technical community associated with the federal land management agencies and regulatory programs obviously has a special stake in this system. The RNAs provide the kind of natural controls which are needed in development and monitoring of management programs elsewhere in the landscape. While additional areas obviously are needed for research and monitoring, the

RNAs are very important sites, both historically and potentially.

Perhaps the monitoring programs associated with federal land management plans and habitat conservation plans will eventually become a major source of support for baseline studies and monitoring programs utilizing RNAs. Although little investment has yet been made in research and monitoring, the funds will almost certainly come as the plans are legally challenged for the lack of credible monitoring programs.



artist: Margaret Herring

Natural Areas Report *Editors: Sarah Greene and Margaret Herring*

This issue was supported by the Forest Service Region 8 natural area program and the Pacific Northwest Research Station.

Natural Areas Report has relied on the expertise and goodwill of many people throughout the ten years of its publication. We are particularly grateful to Connie Redmond and Tami Lowry of the Pacific Northwest Research Station and to all those contributors who shared their knowledge about the science and management of natural areas throughout the country.

Printed on recycled paper

Natural Areas Report

U.S. Department of Agriculture
Pacific Northwest Research Station
333 SW First Street
PO Box 3890
Portland, Oregon 97208

Official Business
Penalty for Private Use, \$300