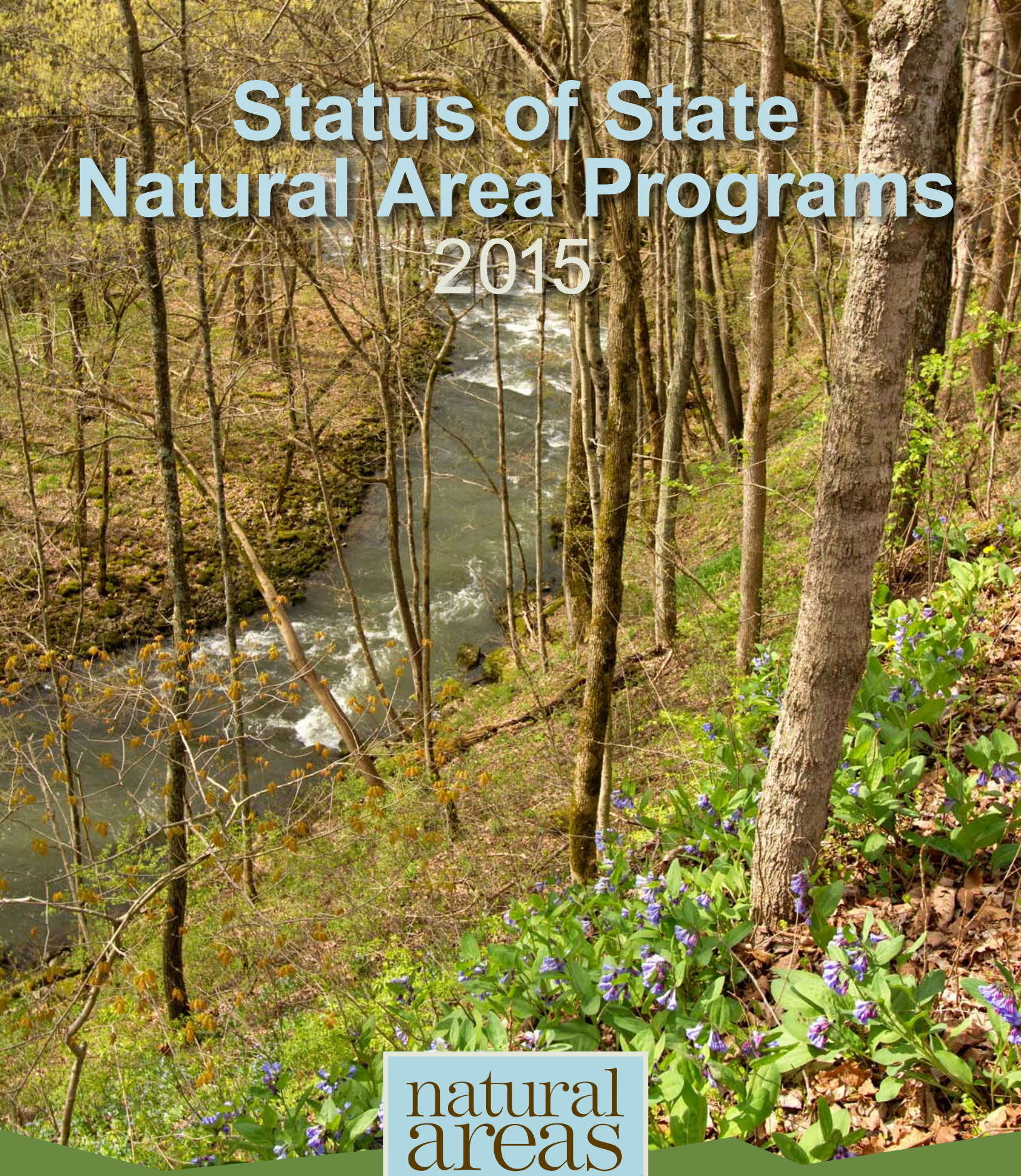
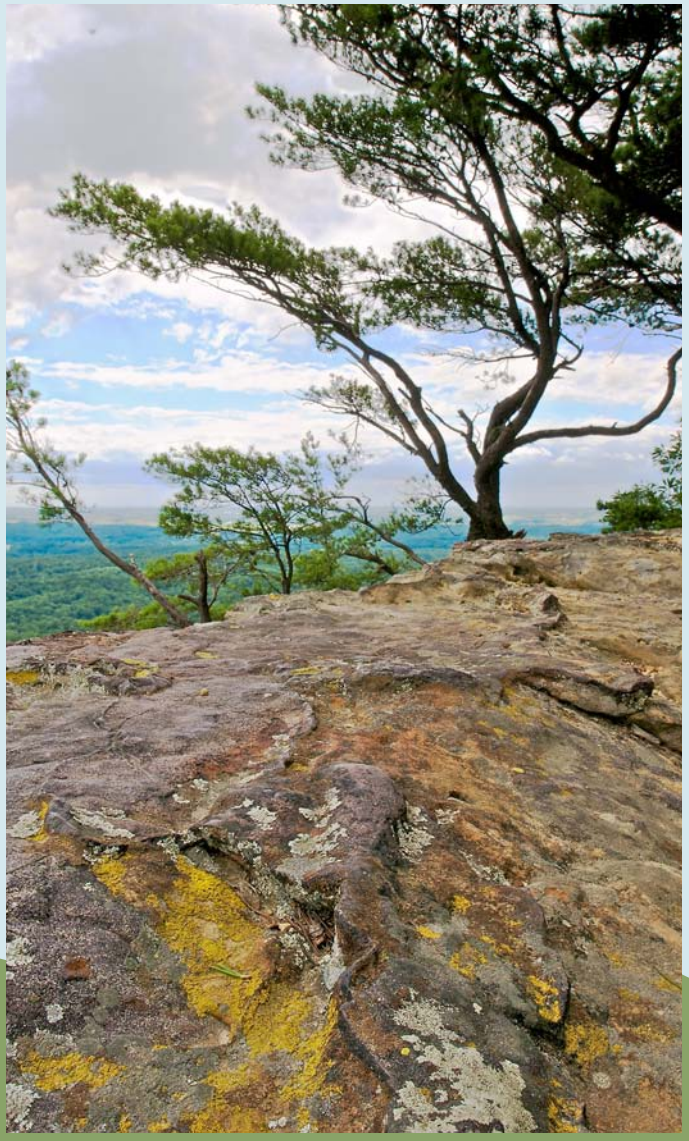


Status of State Natural Area Programs 2015

natural areas association

By: Richard Thom and Mike Leahy



Pilot Knob State Nature Preserve, Kentucky
On Cover: Clifton Gorge State Nature Preserve, Ohio

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MISSION OF THE NATURAL AREAS ASSOCIATION

The Natural Areas Association supports the community of natural area professionals. The Association helps members reach their professional goals, promotes natural areas management based on sound science, works to raise awareness about the need for natural areas conservation, and supports natural areas research.

NATURAL AREAS ASSOCIATION | www.naturalareas.org | 541-317-0199 | PO Box 1504, Bend, OR 97709

Preface

For more than 50 years state natural area programs have conserved and sustained key elements of the nation's natural heritage and served Americans well by identifying and safeguarding these national, natural treasures. State natural area programs have been at the forefront of conserving native plants and animals and the habitats upon which they depend. State natural areas conserve the last, best remaining examples of rare ecosystems such as sinkhole ponds and tallgrass prairie remnants, as well as the best representatives of more common habitats such as upland forests. Consider this sampling of accomplishments of state natural area programs in conserving our nation's native biological diversity:

- In Wisconsin, more than 90% of the plants and 75% of the animals on the state's list of endangered and threatened species have populations protected on state natural areas (Meyer 2005).
- State natural area preserves in Virginia conserve populations of more than 188 rare plant and animal species and more than 36 exemplary natural communities, ranging from tidal marshes to mountain top barrens (Wilson and Tuberville 2003).
- Washington state's natural area preserves range from majestic old-growth forests of douglas fir and western hemlock to tidal wetlands and native grasslands (Washington State Department of Natural Resources 2009).
- Conservation of populations of the Tennessee purple coneflower on designated Tennessee state natural areas helped to recover this species to the point that it was *removed* from the federal Endangered Species Act list in 2011 (Bowen 2011).
- In Colorado, over 300 rare, threatened or endangered species and natural communities are conserved on over 93 sites from mountain wetlands to shortgrass prairies (Colorado Natural Areas Program 2012).

Clearly, state natural area programs are important to the overall mission of conserving native species and ecosystems. The Natural Areas Association's early genesis and leaders came from state natural area programs. That tie to state natural area programs continues today. The Association's mission is to support the community of natural area professionals—and many of them work within or with state natural area programs. As such, the Natural Areas Association highlights, through this publication, the breadth and scope of state natural area programs, so that their importance to the conservation of the nation's natural heritage can be documented for decision-makers and other organizations and individuals interested in conservation.

Apostle Islands Sandscapes State Natural Area, Wisconsin

North Landing River State Natural Area Preserve, Virginia

Mima Mounds Natural Area Preserve, Washington

Introduction

In 1977 the U.S. Government Printing Office published *Preserving our Natural Heritage: Volume II; State Activities*. The 671-page document detailed the status of state-based natural area programs, and related programs, in each of the states. The Nature Conservancy, under contract with the National Park Service, conducted this landmark study. This 1977 report provides solid baseline information on state-level activities to conserve biodiversity resources, including natural areas.

At the time of the National Park Service study, natural area programs seemed to be growing and expanding. Half of the states had "comprehensive" natural area programs as defined by the 1976 study. (A state was considered to have a comprehensive program if it had a system of natural areas in which "more than a single agency may be included.")

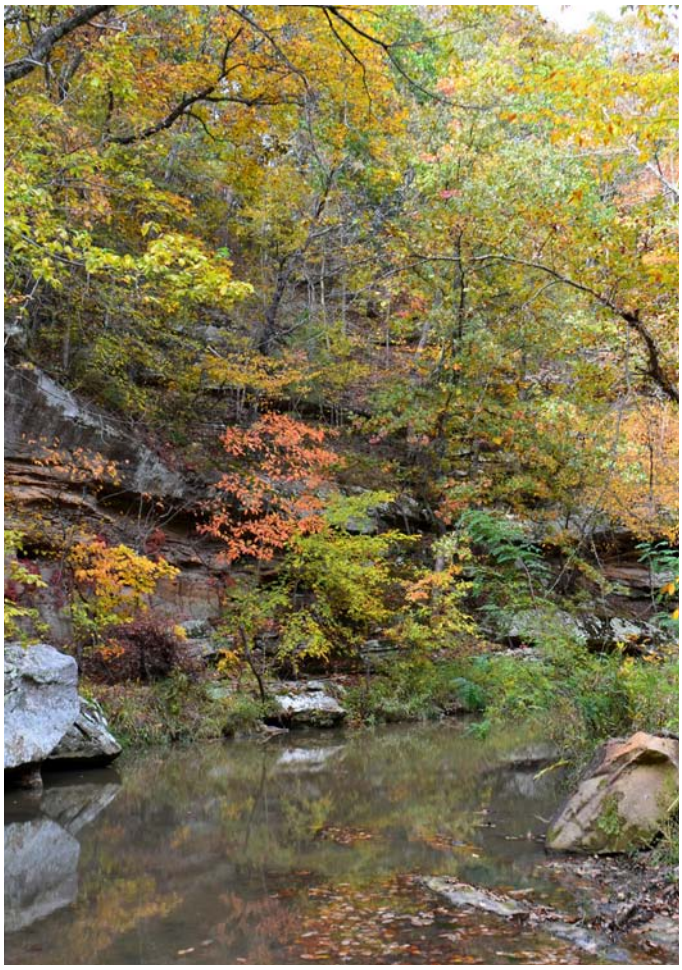
A quarter century later the Natural Areas Association published the report, *Status of State Natural Area Programs 2005* (Thom et al. 2005). In 2001 the authors of this report surveyed programs in all 50 states to update program status and to determine key contacts for state natural area programs. In addition to providing current information on state programs, the Natural Areas Association hoped that the project would help to foster networking among natural area program staff as well as to document opportunities to expand, improve, or initiate state natural area programs. The study provided a rough comparison of state program activity between 1976 and 2001. Additionally the documentation accumulated on each state created a "best source" reference collection that could be kept current through regular updates. This 2015 report is the first of those "regular updates."

Beginning about the middle of the last century, and especially since the 1970s, many states acted to formally protect significant natural features within a natural area, nature preserve, or scientific preserve system. Although there are many differences among the states, natural area programs use the tools of registration, designation, conservation easement, and or legal dedication to recognize and protect units of their systems. The terminology used in this study includes:

- **Registration** – places natural areas on a government registry through a non-binding agreement between a natural area owner and a state agency. Registration formalizes the owner's intent to maintain an area in its natural state and gives an area some protection by public recognition of its significance. Registration implies some level of interest by state government and by the landowner. However, registration confers only a weak level of protection and secures no long-term commitment from the owner. Usually an owner of a registered natural area can withdraw from the program at any time and there are no restrictions attached to the land.

Palmetto Flats Natural Area, Arkansas

- **Designation** – normally involves public land or land owned by a private conservation organization. Designation is usually accomplished by administrative action of state government, usually by an agency. Designated areas are protected by administrative policy, regulation, agency cooperative agreement, or statute. Designation can provide a high level of protection, although this varies among the agencies and states using this protection tool.
- **Dedication** – confers a high level of legal protection and typically is a binding commitment between a public or private owner and the state to permanently set aside a natural area, often including language declaring the area to be in its "highest and best use" as a natural area and that it cannot be diverted to other public uses unless there is a finding of "critical public need for which there is no reasonable alternative" (or words to that effect). Dedication gives a very high level of protection even if the dedicated natural area is in private ownership. Conservation easements can convey similar levels of protection to a property.



Piney Creek Ravine Nature Preserve, Illinois

There is wide variation in terminology between the different states, and even the same term can have different meanings. For example, in some states the recognized natural areas on public land are referred to as "registered," when these types of areas would be referred to as "designated" in other states. For this study we tried to group categories that meant about the same thing together. For example, "registered" units on public land usually have the same high level of protection as "designated" units on public land.

The various state systems and the natural area units within those systems have many different names. Some examples are nature preserve, natural area preserve, natural heritage preserve, scientific and natural area, ecological reserve and nature reserve. Again we tried to understand how the terms were applied within each system and to group areas with similar characteristics together. Exemplary natural communities or ecological communities are the primary elements of natural diversity that natural areas systems are designed to conserve. Natural communities are distinct assemblages of native plants and animals and their physical environment that occur in repeatable patterns across the landscape and through time (Nelson 2010). But because natural communities are complex, they also protect rare species, soils, landforms, geologic features and other natural features.

It can be argued that state governments can best protect the full range of their natural area resources through active, comprehensive, government-sponsored natural areas systems. Thom and Cleary (1999), and Gatewood (1999), list the advantages of state-level involvement:

- State involvement elevates the status of natural areas by recognizing natural area protection as a public trust responsibility worthy of public attention and expenditure.
- States are well positioned to work with other entities, including their own political subdivisions, corporations, federal agencies, and other states, to further natural area protection. All of the potential participants and stakeholders can be mobilized and coordinated by a strong, state-based program.
- States can create laws, regulations, and policies that encourage, mandate, enhance, and fund natural area protection within their boundaries.
- States are responsible to all of their citizens in building a public natural area system that addresses specific citizen concerns based on the state's resources and public values. A state-based program is therefore more likely to protect the widest range of biodiversity, to be geographically comprehensive, and to respond to the greatest range of public need within its boundaries.

Comprehensive programs recognize the importance of protecting a broad spectrum of natural areas. A system open to multiple ownerships will likely be able to capture a wider range of these natural features than a system that is restricted to lands owned by a single agency or private organization. Comprehensive state natural area programs have most or all of the following attributes (Thom and Cleary 1999):

- A state-level authority—designated by law or by policy—to lead the program. This is usually a state agency, but there can be variations.
- A mechanism for coordination among appropriate agencies, organizations and other entities to further program objectives. This can be formal or informal.
- An ability to include, with the voluntary consent of the owner, qualifying lands in the system regardless of ownership, i.e., state, federal, and private land can be included. (Typically federal land cannot be dedicated or have state-level restrictions placed upon it, but many systems include state natural areas on federal lands through cooperative agreements or memoranda of understanding.)

- A recognition of natural area units as part of a coordinated, statewide system with some form of (or combination of) dedication, designation, or registration by law, regulation, or policy. In other words, state government must recognize the existence of a state-based natural areas program and somewhere within state government there is the responsibility to work on this program.
- A public trust statement in law, regulation, policy, or agreement that recognizes the public significance of state natural areas and requires a process of review to remove a unit from the system or to divert its use to another purpose. In the case of dedicated natural areas, there is usually recognition of "highest and best use," a pledge of state protection from diversions and intrusions, and a stringent process for authorizing the diversion of such areas to other uses.
- A stated mission or goal of inclusion of the state's natural features within the system.
- A mission or goal of protection and management of the units to maintain and enhance their natural values.

Methods

We improved the survey method from that used in the 2001 survey. For that study we conducted phone interviews to answer some basic questions about each program. For the present study we distributed a survey form that was completed and returned by the appropriate contact person(s) in each state. Appendix 1 contains the survey questions. Responders could give the questions more time and thought than in the phone interviews. The survey responses provided more detailed and complete information on the topics that were covered. In fact, the responses further illustrated the wide variation and individual nuances of each state's program. Although this made the information better, it hampered the analysis by providing complicating details that we did not have in the last survey.

We used the information from the new survey responses to summarize in a spreadsheet some of the attributes of each system. We used the spreadsheet data as well as individual response details and follow-up conversations to group states into various categories according to the activity levels of state programs for the conservation of natural area resources. We also compiled data on the number of areas and acreage within each state's natural area program. All of the state-generated responses along with the best contact information for each state's natural area program have been electronically archived with the Natural Areas Association and provide a detailed record of the state of state natural area programs at the beginning of 2014.

Detweiler Run Natural Area, Pennsylvania

Results and Discussion

Organizational Structures of State Natural Area Programs

It is important to recognize that this study evaluates state-based natural area "*programs*" and state-level natural area "*systems*;" it does not evaluate a state's natural area "*resources*" (exemplary natural features such as old-growth forests, remnant prairies, and other natural communities; rare species sites and special geologic features), nor the quality of a state's protected natural areas. Every state has natural area resources and natural areas in conservation ownership, whether or not they are formally recognized as such. There are state parks, state fish and wildlife areas, state forests, and other types of conservation lands under various state agencies. Protection of elements of biodiversity is implicit in the missions of many of the agencies that manage those lands. In fact, many of these state areas, especially state parks, were created to protect the same resources that would qualify as state natural areas in states that have natural area programs. So having a natural area program is not necessarily related to the actual natural area resources or even public ownership of those resources. It has more to do with public recognition, long-term protection, and management of those resources for their natural area values.

States that lack formal natural area programs are less likely to recognize, protect, and manage for their natural area values. Some states that lack active programs have conserved significant natural area resources and recognize those resources. Other states that lack natural area programs seem

Savage Neck Dunes Natural Area Preserve, Virginia

to have done little intentionally to protect and conserve these resources compared to states with active programs.

After studying the state survey responses we were able to break states into three categories based on state-level interest specifically in protection of natural area values:

I. States with active natural area programs. These states were further broken down into (A) states with comprehensive and coordinated programs; (B) states with multiple programs in separate agencies and little or no coordination between/among the programs; and (C) states with only an active registry program with no higher levels of protection for recognized natural areas.

II. States which have a natural areas system with recognized units, but whose programs are administratively inactive.

III. States which may or may not have programs that actively protect natural area resources but do not have formal natural area programs. They therefore could not be compared in this study.

We considered a state natural area program to be active if it had someone on its staff that could respond on behalf of the program, and if the lead agency considered itself to have an active program. There are thirty-two states with active natural area programs (Figure 1, Appendix 2). Geographically most of the active natural area programs are in the Midwestern, Southern, Eastern, and Pacific Coast states. Many Western and Great Plains states lack state programs. There is a wide range of activity level among active natural area programs. Some states have robust staffing and other program resources. Other programs have few staff, or a single staff person, or one or a few staff who only devote part of their time to the program. The number of units in each state's natural areas system is an indication of the level of activity and degree of success a program has had, although this figure does not necessarily indicate the present level of activity.

Twenty-eight states with active programs have what we considered to be comprehensive and coordinated programs (Figures 1 and 2). In such programs a single agency has lead responsibility for the system, and someone in that agency keeps track of the number and acreage of units in the system, regardless of each unit's ownership. The best clue as to whether a state has a coordinated system is whether that state can readily provide a list of units of the system and attributes of those units such as acreage and ownership.

Four states with active programs have two or more separate programs within the state, including California, New Hampshire, New York and Pennsylvania (Figure 1). Oklahoma is the single state that maintains an active voluntary landowner natural area registry program but has no higher level of formal natural areas protection. Three states with natural area systems have programs described by the lead agencies as administratively inactive (Connecticut, Massachusetts and Michigan). Presumably these programs could become active again if funding and priorities shift back in their favor. The fact that the natural area units still exist in these "inactive" programs may testify to the protective value of recognized natural areas and laws creating natural area systems. These natural areas in inactive programs apparently have not been diverted to other uses and government still manages them for their intended purposes. Two states, Kansas and Montana, have state statutes providing legislation for a state natural area program but they have never followed up with creating such a program.

All of the other states fall outside of this study since they have no programs specifically designed to formally recognize, protect and manage natural area resources (other than Natural Heritage Programs). As previously stated, this does not mean that those states do not have significant natural area resources, or that they are not protecting such resources. We just can't make comparisons using the methods of this study.

Enabling Legislation and Policies of State Natural Area Programs

All but a few states with natural area programs have state laws that relate to those programs (Figures 3 and 4). Often these laws create the programs and assign responsibility to an agency. They describe the purposes of the programs and provide for the protective instruments, especially dedications, for units of the system. A few states with active programs

Sweeney Granite Mountains Natural Reserve, California

have no basis for them in legislation. These programs were created by agency policies and interagency agreements. Missouri and Maryland are two states with such programs. Missouri's program began in 1970 within one agency and has grown since then to include most of the landowning agencies within the state. Maryland's system of state natural areas began in 2012. Although states with no statutes related to natural area programs can develop and maintain strong programs, it can be argued that statutory basis for a program provides further protection and recognition. In theory at least provision for the system in state law should give units of the system the strongest legal protection from diversion to other uses.

Nineteen states with active natural area programs have some type of advisory board, commission, coordinating committee or council. These can range in authority from being state agencies with lead program responsibility to citizen advisory boards. Depending on specific structure, members of these boards are citizens or agency staff chosen for their interest in, knowledge of, or authority over natural area resources. Committees and boards potentially strengthen a program by improving coordination, generating ideas and projects, and increasing public and political support and program activity level. An interesting coordination approach is used by the states of Washington and Oregon. They are members of the Pacific Northwest Interagency Natural Areas Network which coordinates both state and federal programs in these two states. This is the only example that we found of an ongoing, multi-state effort to coordinate natural area programs.

Fifteen states maintain active registry programs (Figure 5) which are voluntary natural area recognition programs without long-term protection commitments. Registry programs can be used to include private and federal landowners in programs where designations or dedications are restricted to state lands. States that rely on registry programs could enhance their ability to protect natural area resources by considering adoption of stronger protection mechanisms.

Natural Area Land Ownership Patterns

State natural area programs include many different types of land ownership (Figure 6). Eleven programs only include natural areas on state-owned land, sometimes restricted to a single agency. Many states provide for other types of non-federal ownership. These systems sometimes require a conservation easement, a dedication, or some type of management authority. These requirements make inclusion of federal land problematic since the federal lands cannot be encumbered by the state. Other states include federal land in their programs through cooperative agreements and incorporation of designations into federal area management plans. Some states have high levels of coordination with federal agencies, either to include federal lands in the state systems, or to help identify and nominate areas for the federal research natural areas program.

Natural Heritage Programs and State Natural Area Programs

There is usually a close relationship between state natural area programs and state natural heritage programs. There is a state natural heritage program in all of the 50 states and this network of state natural heritage programs which began within The Nature Conservancy® is now coordinated through the efforts of another nonprofit conservation organization, NatureServe®.

State natural heritage programs track rare and endangered species and ecosystems. States, federal agencies, and private companies rely on the information within natural heritage programs to review the probable environmental impacts of development projects, and to minimize impacts by avoiding disturbance to tracked biodiversity features. This information is also used for land conservation, planning and zoning, and for other purposes. Having this information in easily available, digital formats has greatly improved project reviews. The natural heritage programs are thus preventing undesirable impacts to each state's biodiversity resources simply by making critical information available to planners in a timely manner.

The often close relationship between state natural area programs and natural heritage programs is sometimes reflected in the names of the programs. For example, some state natural area programs call their areas "natural heritage areas." Likewise, some natural heritage programs are called

natural area inventories (e.g., the Florida Natural Areas Inventory). In some states, the natural heritage and natural areas staff are fully integrated within a natural heritage program (e.g., the Virginia Natural Heritage Program).

In many states natural heritage programs serve distinctly different roles than do natural area programs. Natural heritage programs survey areas for sites worthy of protecting. They document and track the state's exemplary natural communities, species of conservation concern, and other elements of natural diversity. They are the leading biodiversity science program in the state and they play an integral role in the state's biodiversity conservation efforts (Groves et al. 1995).

Natural area programs focus on the actual inclusion, protection and management of sites as units in a publicly recognized, protected, and managed natural areas system. Natural area programs rely on the information from the natural heritage programs to identify future natural areas and to help evaluate gaps in representing the full range of a state's biodiversity within the natural areas system. Most of the states with active natural area programs administer those programs within the same state agency as their natural heritage program (Figure 7). Where this is not the case the state natural heritage program is usually located within a university.

State Natural Area Program Metrics

The two oldest state natural area programs, Wisconsin (1951) and Illinois (1963), respectively, have the greatest number of designated state natural area units (Figure 8). To a degree, programs with only a few areas are probably not as active or as aggressive in growing their systems as those with many areas. However, not every state program responded consistently to the survey questions and so there is a degree of error in comparing programs by number of units.

Western state programs typically have larger acreages of state natural areas and larger acreage per natural area unit (Figures 9 and 10). This reflects the larger intact natural landscapes in the western U.S. On the other hand, long-established state natural area programs such as in Wisconsin, Illinois and Tennessee also have large acreages of state natural areas (but smaller acreage per natural area unit compared to western states) based on a long history of natural area protection.

One problem with comparisons between states of number of natural area units and acreage data is that there may be differences in levels of protection of the various categories of natural area units within each state. We have already mentioned that some states call their public agency natural areas "registered" areas, the same term that applies to natural areas owned by private landowners in other states.

Bluff Spring Fen Nature Preserve, Illinois

The registered public areas gain a high level of protection within this category, while the registered private land can usually be withdrawn from the programs at any time.

Because of differences in criteria, results of the 1976 survey and this study can be roughly, but not exactly compared. There were 25 states in 1976 (Figure 11) with a state natural area program compared to 36 states with some form of program in 2014 (Figure 12). However, in reality, only 32 states in 2014 had *active* programs. In 2001 there were 37 states with some form of an active state natural area program (Thom et al. 2005). This "loss" of five state natural area programs is due to: 1) programs in Connecticut, Massachusetts, and Michigan becoming administratively inactive due to state budget cuts and 2) the criteria that defined state natural area programs in Thom et al. 2005 erroneously counted Alaska and Texas as having programs in 2001. Despite difficult budget conditions for many state natural resource agencies, state natural area programs persist and even a few new programs have developed such as in Maryland and Louisiana.

Red Lake Peatland Scientific and Natural Area, Minnesota

Allred Lake Natural Area, Missouri

Natural Areas Stewardship

Active state natural area programs provide for the management of units within their systems. Many programs have detailed management, regulations, and procedures guides. Most programs use natural area management plans as a tool to achieve ongoing, effective stewardship. In natural area programs with multiple ownerships, the owning agency usually provides the resources, including staff, to accomplish the management.

Resource management is always a challenge. Just completing or updating management plans for every unit of a system can be a major task. State programs recognize that each site must be considered individually as far as compatible and appropriate types of public use, priorities for ecological management, infrastructure needs such as trails and prescribed fire breaks, and monitoring and research needs. The underlying mission and management philosophy of the owning agency also influences approaches to management. Many natural area systems allow hunting and fishing in at least some of the areas in the system. And some uses, such as horse trails or roads that predated the natural area designation are sometimes grandfathered in to the management plan.

State responses show that invasive species, lack of adequate prescribed fire, climate change effects, fragmentation and land use changes on surrounding lands, mineral rights and extraction issues, ATV trespass and other inappropriate and incompatible public uses challenge natural area managers in many state systems.

Conclusion

Although no two state natural area programs are the same, programs share the goal of protecting and conserving natural features—elements of biodiversity (especially exemplary natural communities)—that might otherwise vanish from our increasingly altered landscape. This study documents the current status of natural area programs across the country. We hope that this will be a resource to facilitate communication, develop new state natural area programs, and foster networking among staff of different state natural area programs.

Even though many states have faced severe budget cuts of their natural resource agencies since 2001, state natural area programs continue to protect and conserve important aspects of the nation's natural heritage in over half of the states. While some programs have become inactive, new programs have emerged. This study should assist the Natural Areas Association with its efforts to support state natural area programs. State natural area programs are an important part of the larger national effort to protect and conserve natural areas.

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Columbia Falls Natural Area Preserve, Washington

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For additional information about state natural area programs please visit the Natural Areas Association website page at www.naturalareas.org or contact the association at info@naturalarea.org; PO Box 1504, Bend, OR 97709; Tel: 541-317-0199.

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Cherokee Prairie Natural Area, Arkansas

Appendix 1

Questions for the 2015 Update of the Natural Areas Association Survey of State Natural Area Programs

Please provide data for your state as of the end of 2013.

1. State Natural Area Programs are sometimes created by state law, sometimes by agency or multiagency policies and cooperative agreements, sometimes by a combination of these. How was your state's system created? ☐ State statute ☐ Administrative policy ☐ Combination ☐ Other

   Please elaborate and provide summaries of the laws or policies if possible. How long has your state had a formal natural areas system (beginning year)? What is the name of your state's program (for example, the Illinois Nature Preserves System; the Missouri Natural Area System)? _____

   _____

   _____

   _____

   _____

2. Comprehensive state natural area programs include lands in many types of ownerships, often managed by several agencies. How do the owners of the units of your natural area system coordinate on policy, management, and other issues? _____

   _____

   _____

   _____

3. Can any land be included in your system, regardless of ownership, or is it restricted to certain types of ownership? (Examples: Any ownership, state, federal, private; only state-owned land; only land owned by two state agencies; etc. Please provide clarification.) _____

   _____

   _____

4. Natural area programs have several types of protective categories for units within their systems. Are your state natural areas dedicated, designated, registered, or recognized and protected by some other mechanism? _____

   _____

   Are the categories of protective status provided for by law, policy, or some other way? _____

   _____

5. Do units of the system receive strong protection from diversions to other types of land use? For example, states with dedicated and designated natural areas often have provisions that diversions for other uses are not allowed unless there is a public necessity for which there is no reasonable alternative and they provide for a process of careful review before changing the natural area protection status of a unit of the system. What type of protection is in place for your state's system? _____

   _____

   _____

6. States with comprehensive natural area programs typically include a goal within their programs along the lines of including examples of all of the state's natural features within this program. Does your program include such a goal which is stated in law or policy? If not, what is the stated goal of your state's program as far as capturing a range of the state's diversity within your system? _____

_____

_____

7. How are your natural areas managed? _____

_____

_____

Do they have management plans? (In many states the managing agency/owner determines the details of area management within the guidelines of the statewide program.) _____

_____

8. Various public recreational uses are allowed in natural areas. This is often determined by the size, location, and characteristics of the natural area and is also influenced by the management philosophy and mission of the owning agencies. Most state programs prohibit motorized vehicles from their natural areas other than through roads that existed prior to designation. Other uses such as hunting, fishing, bicycling, backpack camping, and horseback riding, geocaching, etc. vary. Please summarize what uses are allowed on your natural areas. We are particularly interested in hunting and fishing since this question was asked during the previous survey. Any elaboration on recreation compatibility and how you determine allowable uses will be appreciated. _____

_____

_____

_____

9. Are you the best contact to represent your state's natural area system? If not, please provide the name and contact information of your state's best contact. _____

Please provide names and contact information on other contacts in your state. We would appreciate your sharing this survey and collaborating with your program partners on the responses. We realize that many states have a number of key partners and no single person can answer the questions in this survey. _____

_____

_____

10. States with natural area programs usually have some type of coordinating body that helps to promote the system, screens and approves candidate areas for the system, provides interagency coordination, provides guidance on policy and management, and keeps records for the program. These may be formal commissions established by law, or less formal interagency councils or committees.

Does your state program have a coordinating body? _____

If so, what is it called and how are its members selected? _____

_____

How is it staffed? _____

How are units of your system identified, nominated for inclusion, and approved? _____

_____

Who maintains the list of natural areas in your system and provides summary public information on the system?

_____

11. Does your system have a website or one that is included in another agency's website? _____

Please provide the address. _____

12. Please provide the following statistics on your natural areas system as of December 31, 2013:

Total number of units (natural areas): _____

Total acreage within the system: _____

Size of smallest natural area and largest natural area: _____

Number and acreage of natural areas on private land? _____

Number and acreage on public land? _____

13. If your state does not have a natural area program, what programs or agencies serve some of the same functions of protecting high quality examples of your state's biodiversity?_____

14. Does your state have an active Natural Heritage Program?_____

What agency houses your Natural Heritage Program?_____

15. Please send me any publications, directories, legislation, etc. about your program for further background information and for disposition with the Natural Areas Association. _____

16. If there are further points to clarify about your program, please provide them. _____

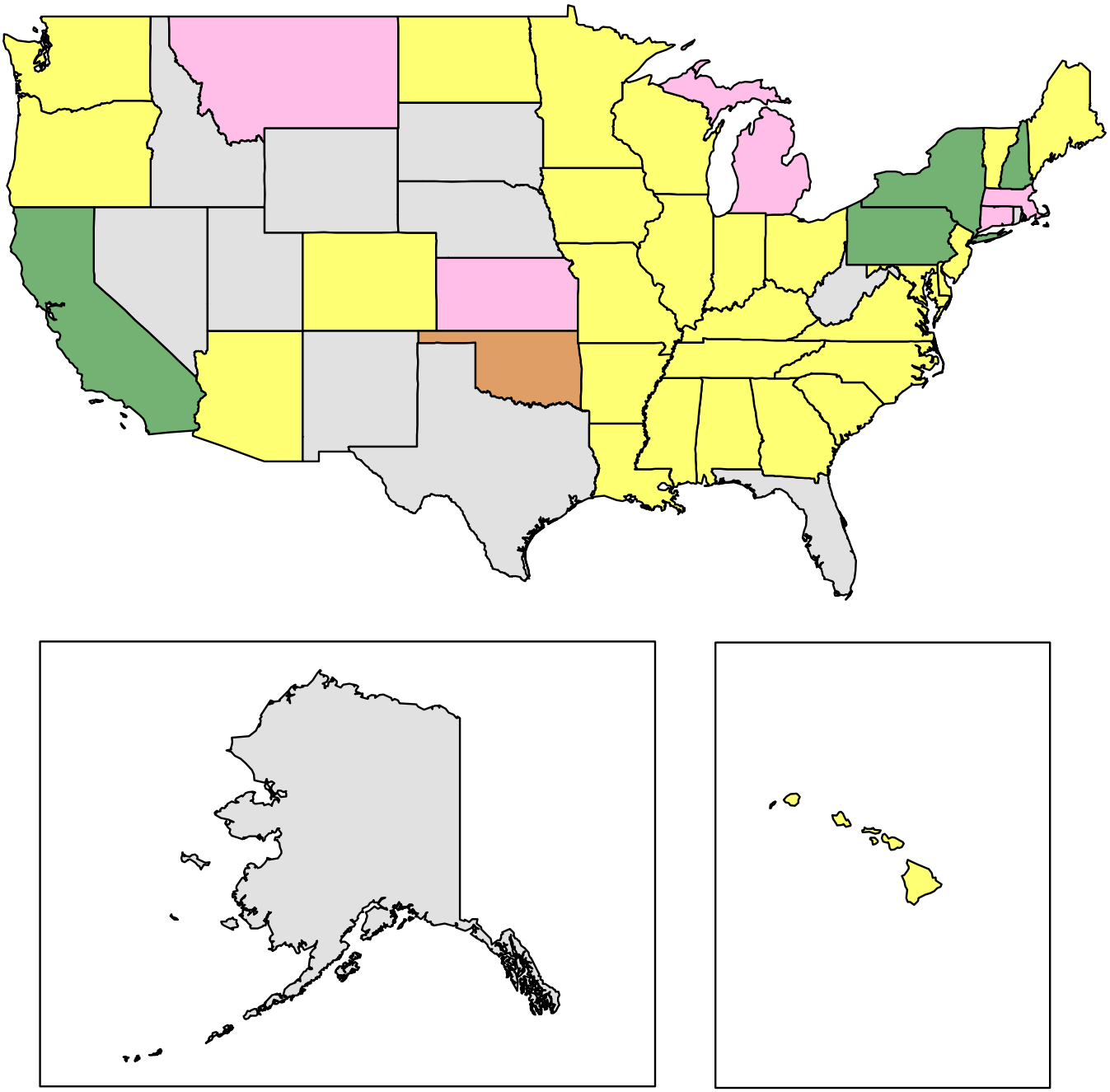
_____

_____

_____

Appendix 2 – Figures

Figure 1 – Status of State Natural Area Programs as of January 2014



States with active, comprehensive state natural area programs.

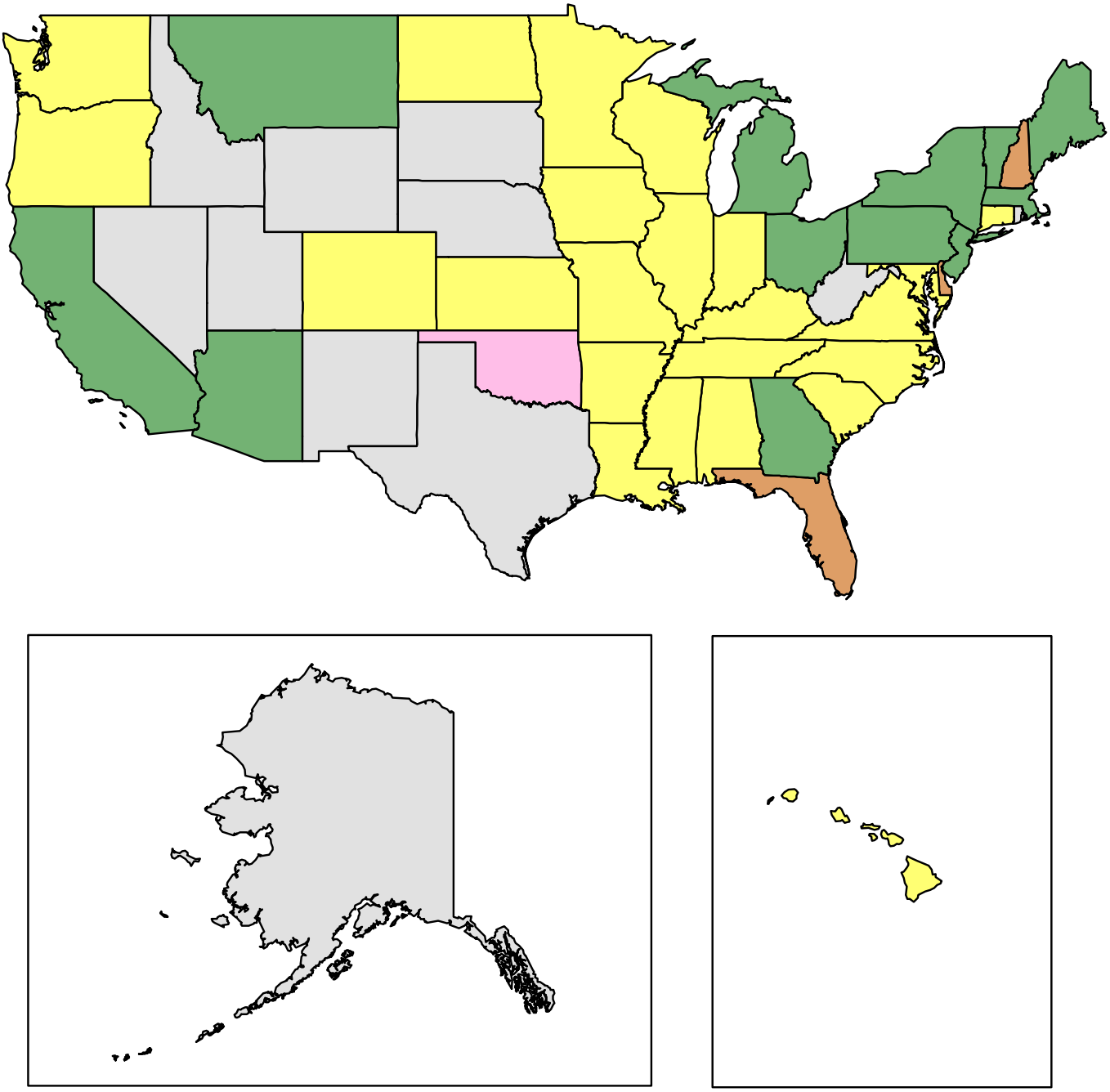
States with active natural area programs housed in multiple agencies without formal interagency coordination.

States wtih administratively inactive state natural area programs.

State natural area program consists only of a registry.

States that may protect significant natural area resources but no specific state natural area program exists.

Figure 2 – Statement of Natural Area Program Goals



Goal of comprehensive inclusion of state natural features.

Goal of designation of natural features on state-owned land only.

Broader goals than traditional natural area programs.

State natural area program goal consists of a registry for private lands.

No public goal of comprehensive natural features conservation.

Figure 3 – States with Statutes Relating to Natural Areas

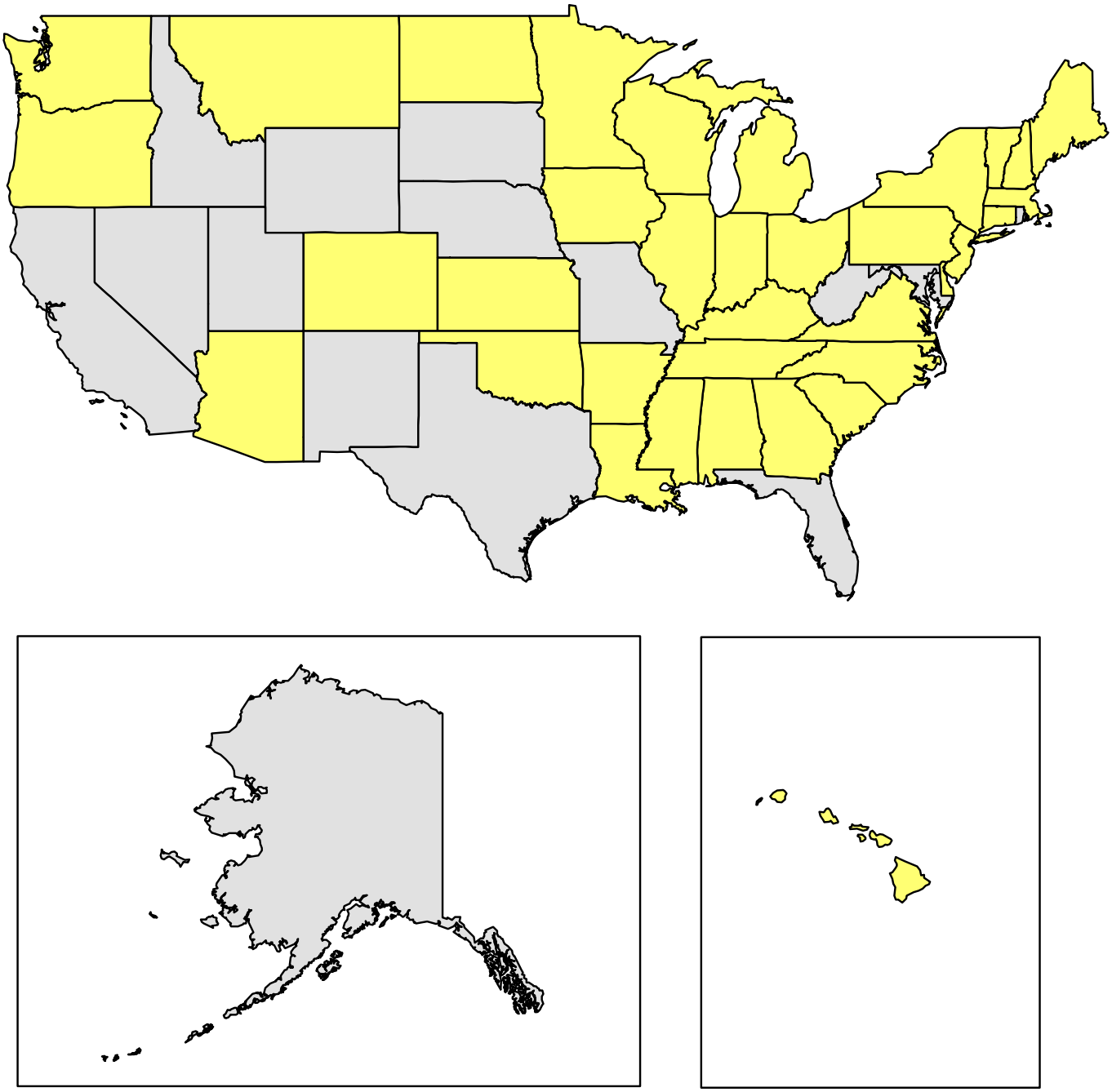
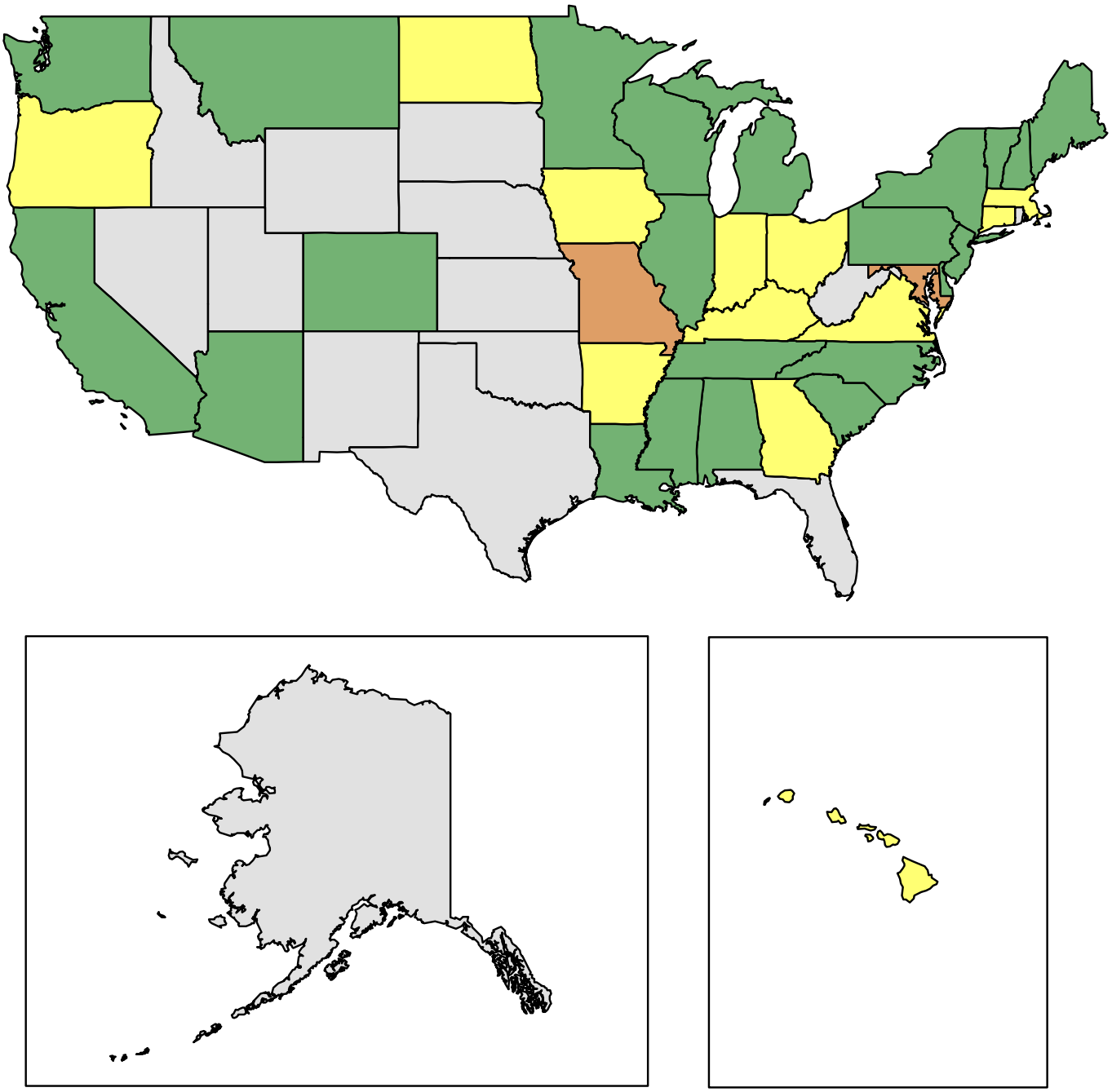


Figure 4 – Natural Area Dedication and Designation



Natural areas dedicated by statute.

Natural areas dedicated by statute or designated by agency policy or regulation.

Natural areas designated only by agency policy or regulation.

No areas dedicated or designated in a state program.

Figure 5 – Natural Area Registry Programs

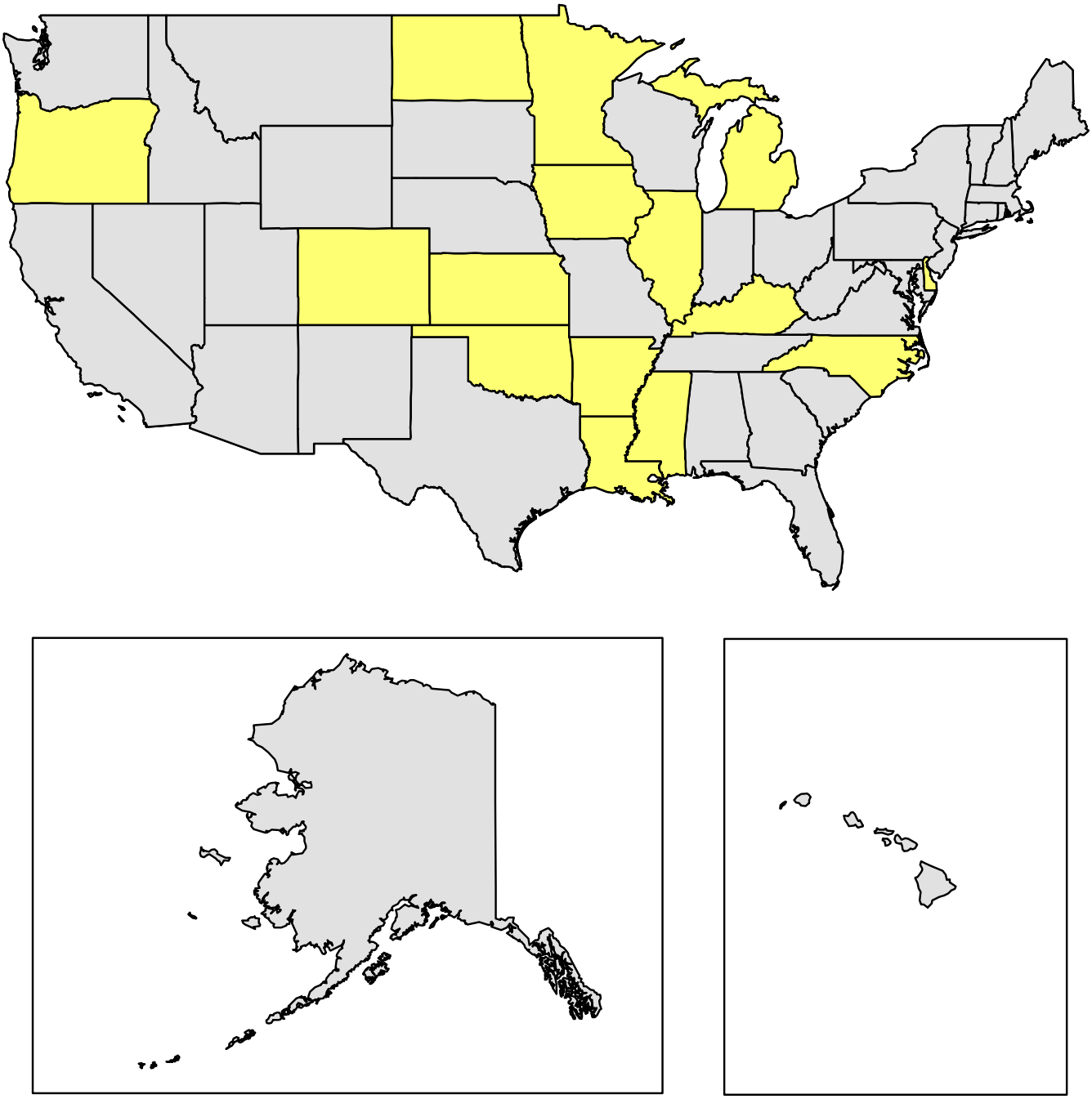


Figure 6 – Natural Area Land Ownership Types

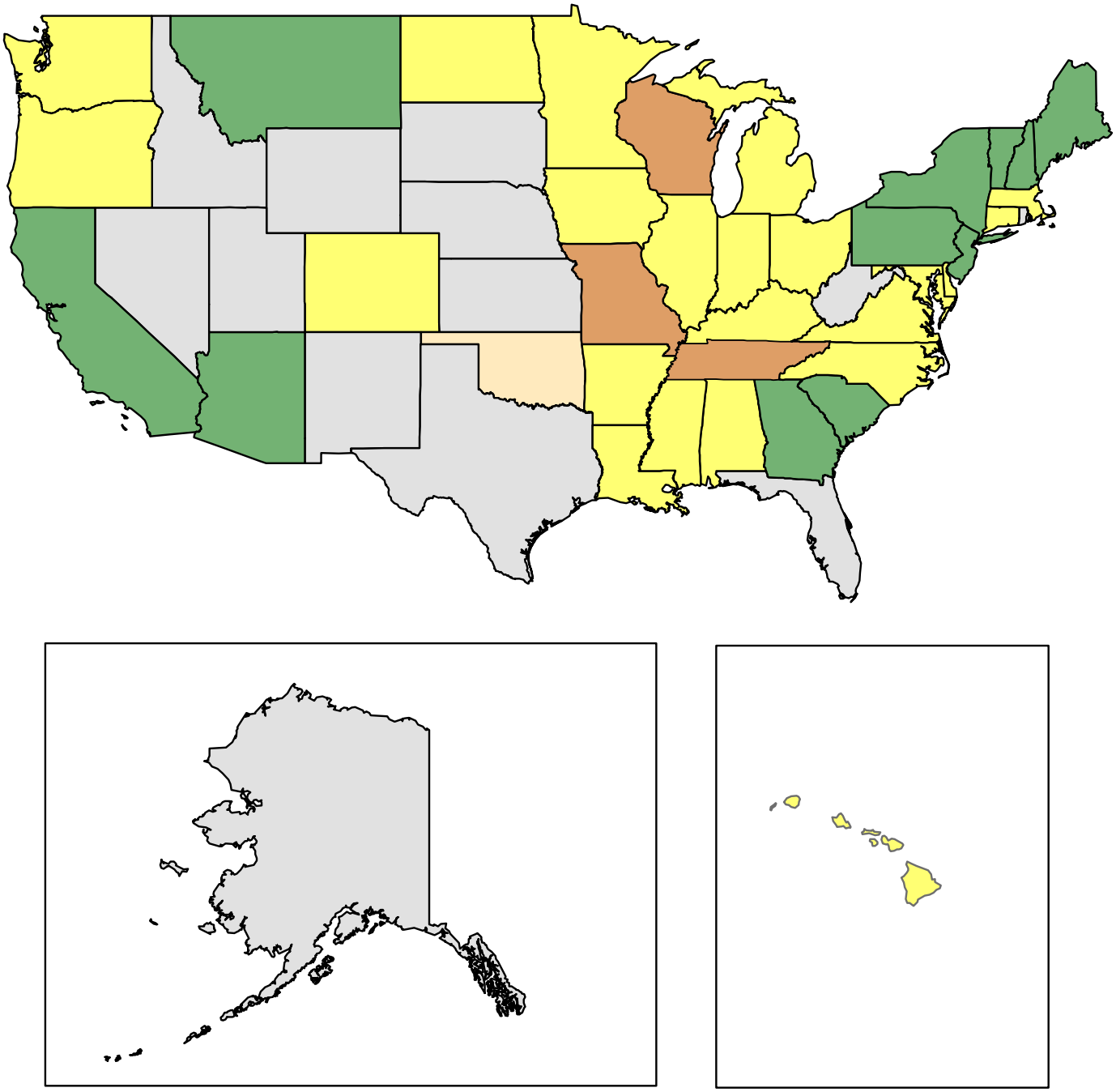


Figure 7 – Natural Heritage and Natural Area Programs – Administrative Relationship

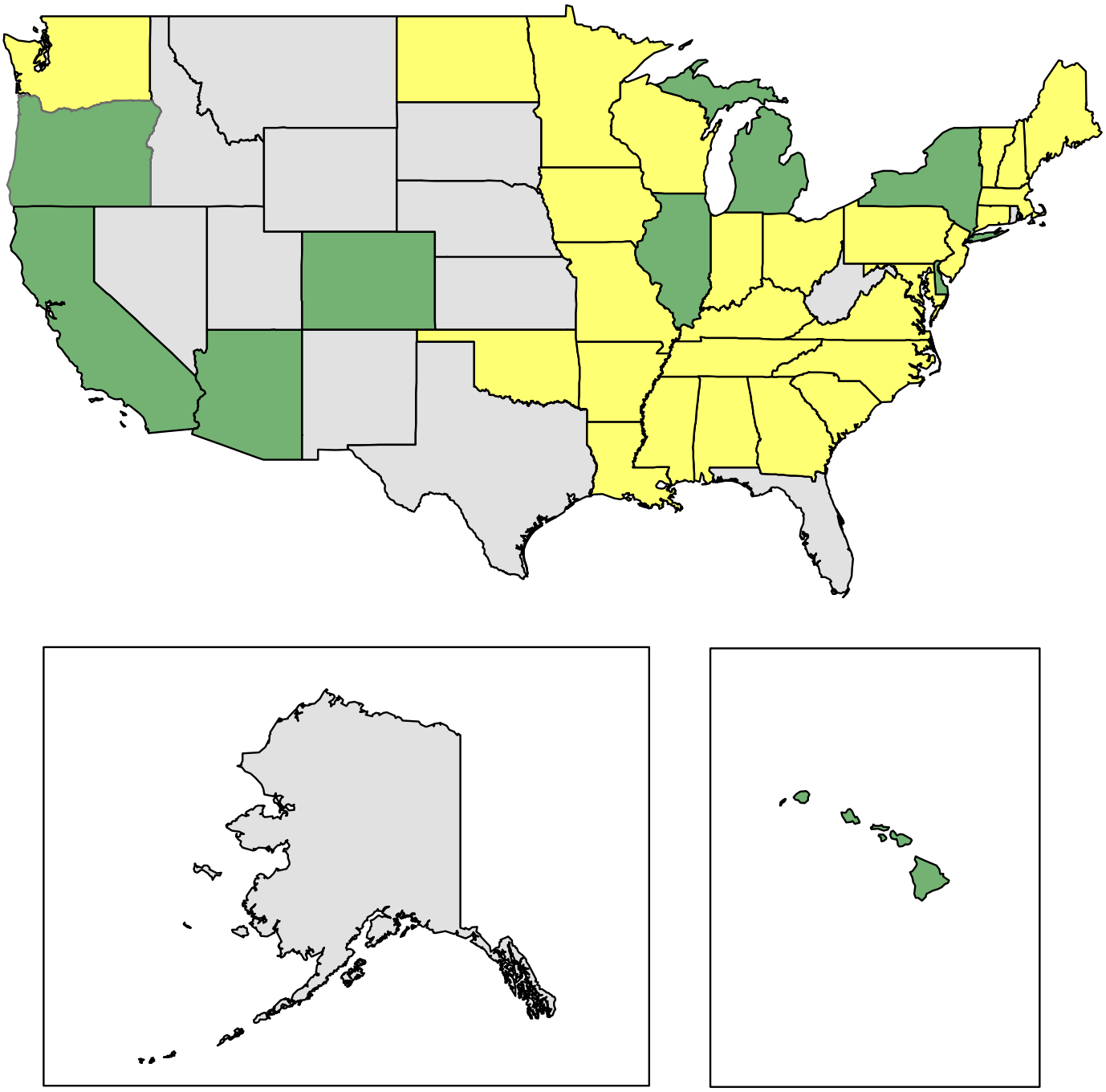


Figure 8 – Number of Dedicated and or Designated Natural Area Units

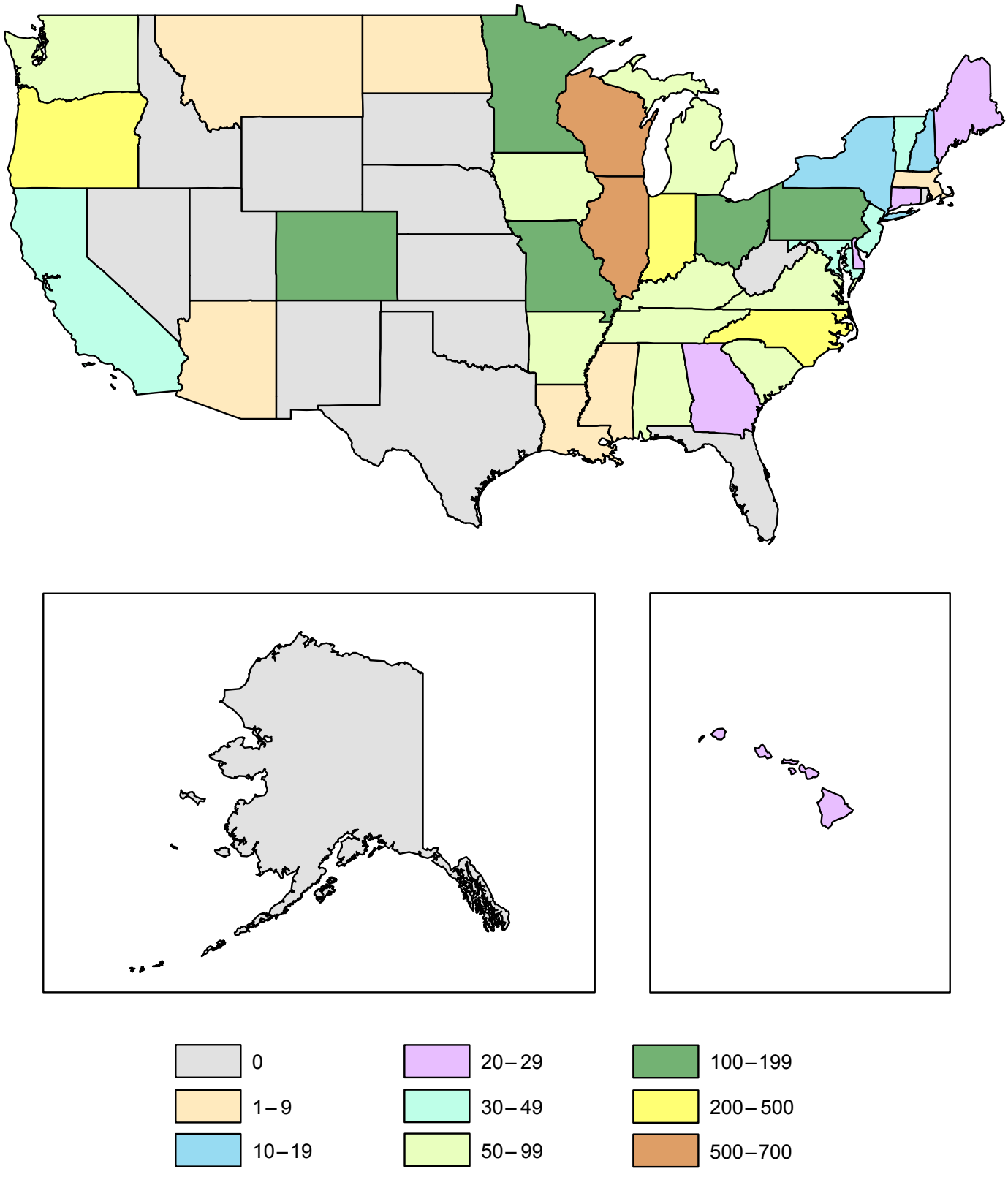


Figure 9 – Acreage of Dedicated and or Designated Natural Areas

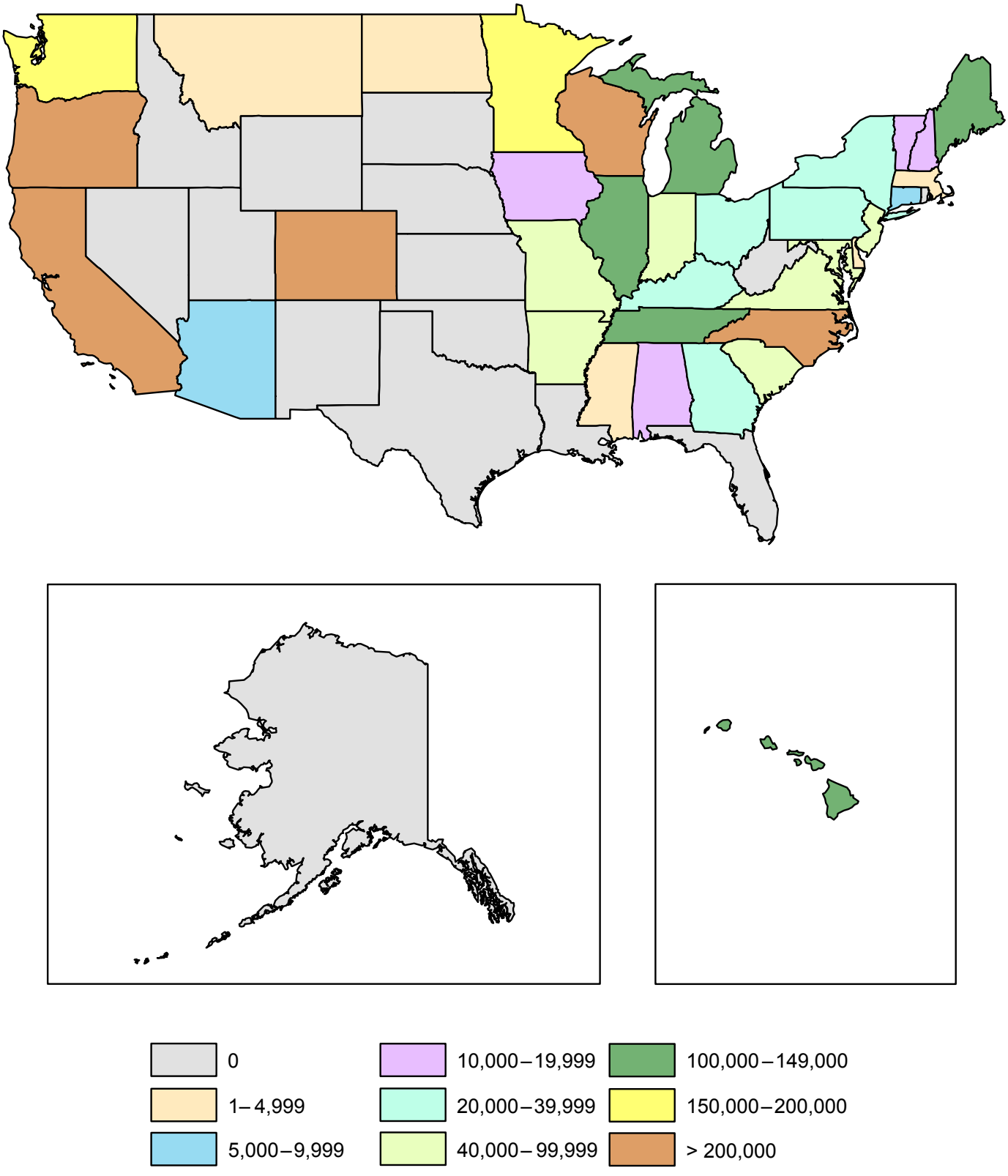


Figure 10 – Average Acreage per Natural Area Unit (Site)

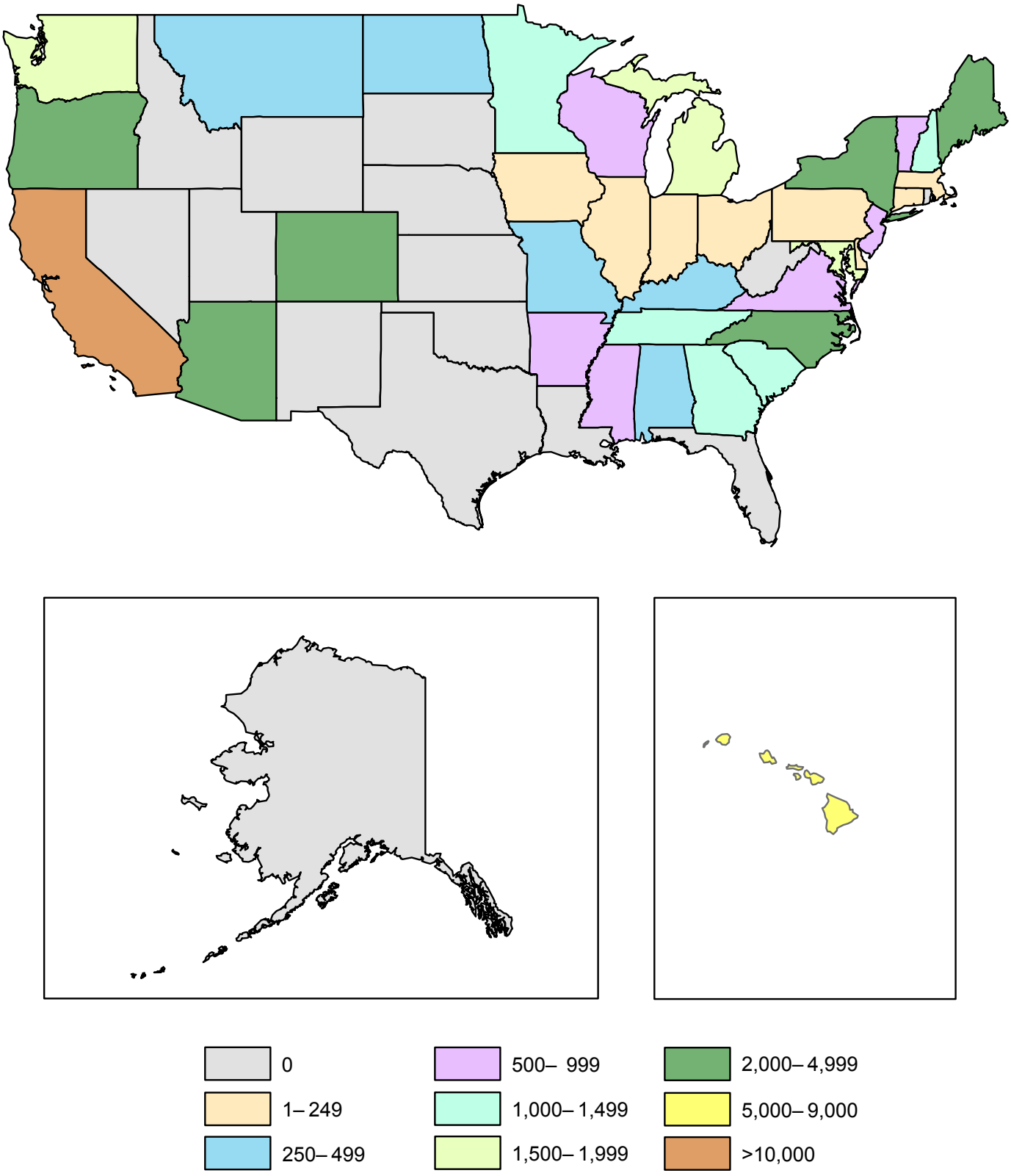


Figure 11 – 1976 Survey Results

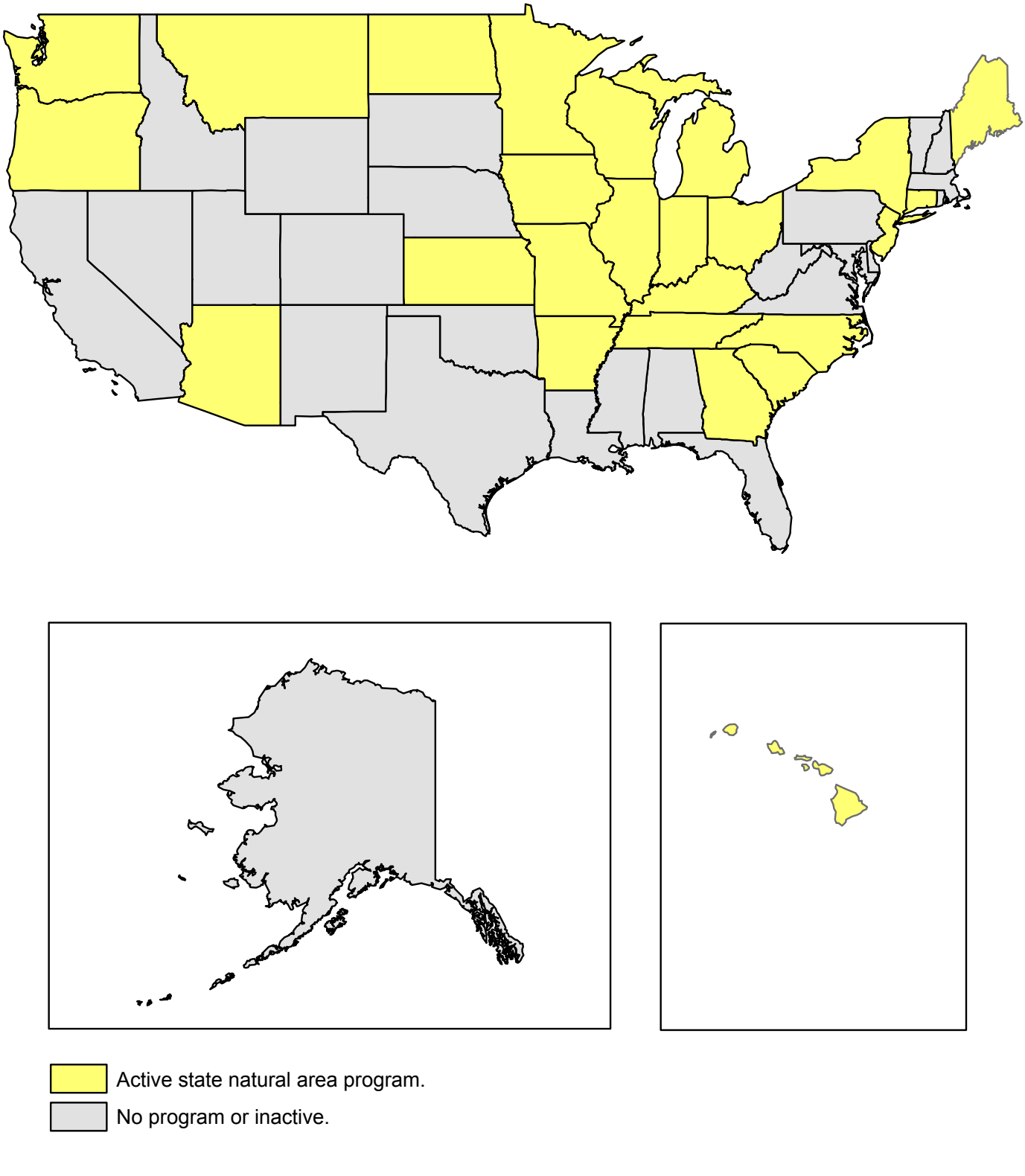
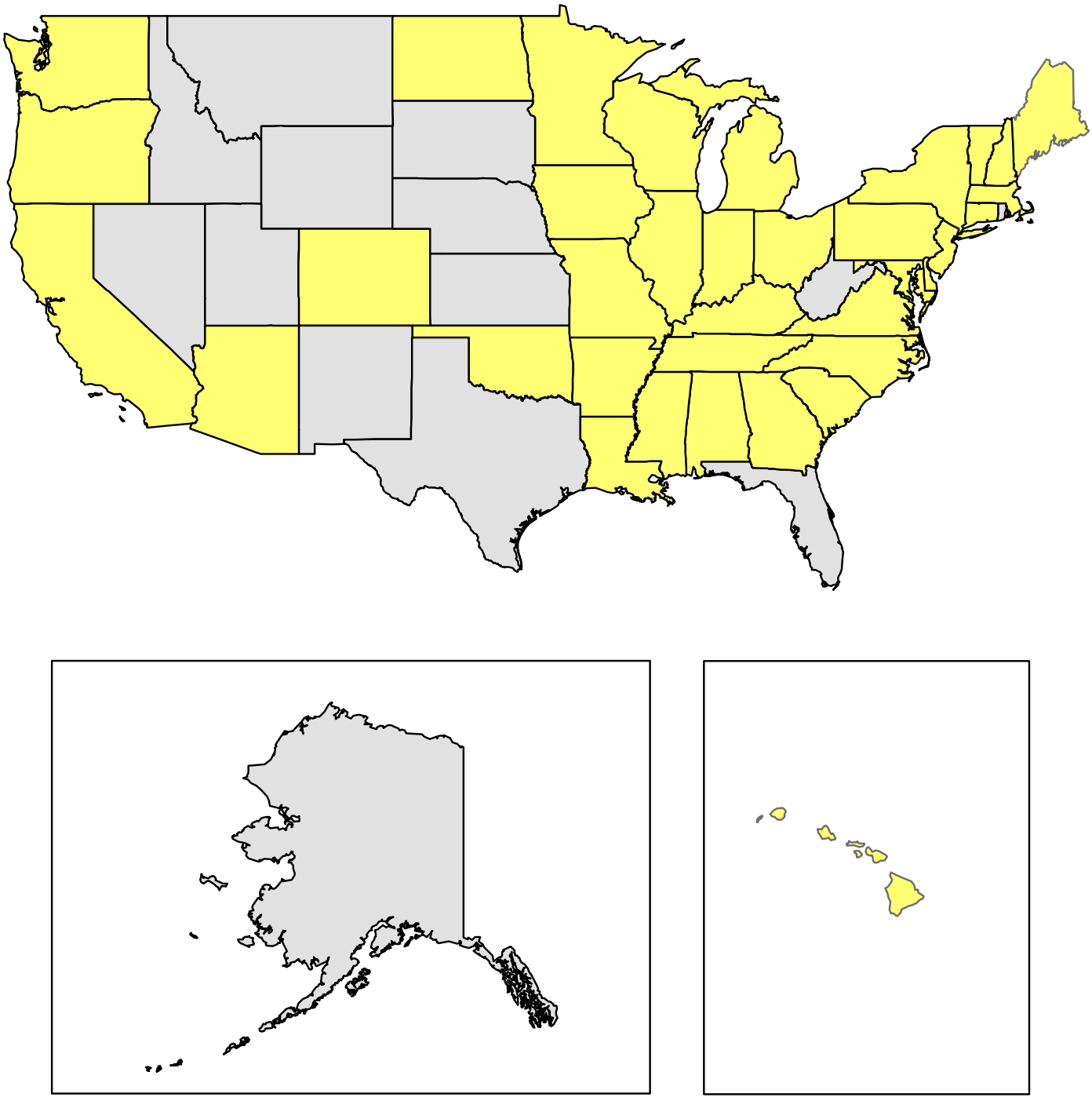


Figure 12 – 2014 Survey Results



Supporting Professionals Protecting Nature

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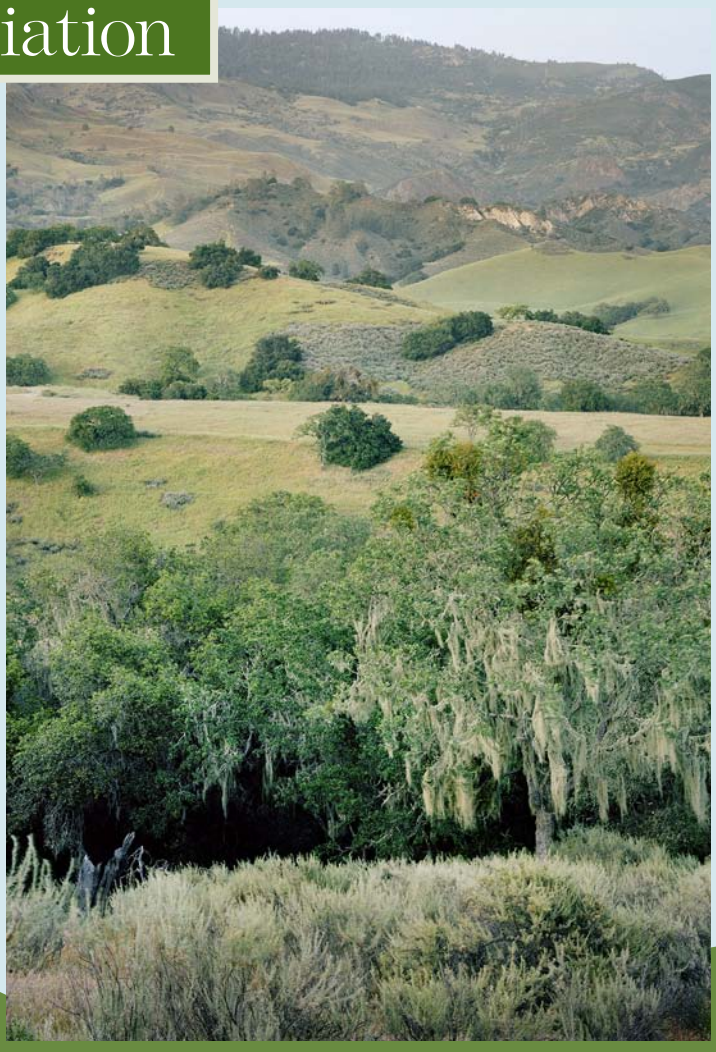

Clockwise from top left: Blanton Forest State Nature Preserve, KY, Bigelow Cemetery State Nature Preserve, OH, Sedgwick Natural Reserve, CA, Hook Lake Bog State Natural Area, WI, and Alan Seeger Natural Area, PA.

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