

Colorado Natural Areas Program



The Field Press

Volume 3, Issue 1

April 2000

What's new at CNAP

Colorado Natural Areas preserve some of the finest examples of Colorado's original and unique landscapes for the benefit of present and future generations. Sites qualify as Colorado Natural Areas when they contain at least one unique or high quality feature of statewide significance: **native plant communities, geologic formations or processes, paleontological localities, or habitat for rare plants or animals.** It is the responsibility of the Colorado Natural Areas Program to identify outstanding natural features throughout the state, to recognize landowners for their stewardship of these special places, and to work with interested landowners to maintain important pieces of Colorado's natural heritage. All management agreements are voluntary and non-binding.

New CNAP web address!
<http://cnap.state.co.us>

CNAP Welcomes New Stewards

We'd like to welcome an abundance of new volunteer stewards! Stewards significantly extend the reach of our limited staff by keeping an eye on far-flung natural areas. They help us spot potential management concerns at an early stage, and they have a good time visiting these remote corners of Colorado. With 63 designated sites, we are always looking for help in the field. If it sounds interesting to you (all that we ask is one visit to your area per year), please call or email Ron West (see page 2).

(Continued on page 7)

Imperiled Wildlife Species and the Colorado Natural Areas Program

One of the unofficial benefits of the Natural Areas system is the protection of species that are declining or rare, but do not yet warrant threatened or endangered species status. This not only protects the species before it's nearly "too late," but it also allows public land managers and private landowners much more latitude (and likely increased success) in designing protection strategies for the species. Last spring's Field Press reported on the long list of rare plant species protected in Colorado's Natural Areas. Today we're focusing on imperiled wildlife species.

Since its inception, CNAP work has leaned towards the plant kingdom, primarily because few other entities are concerned with plant species.

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From the Director . . .

Hats Off To Our Partners!

CNAP was established to identify and preserve "what is best of Colorado." The statutory mission of the Program is:

Colorado Natural Areas preserve some of the finest examples of Colorado's original and unique landscapes for the benefit of present and future generations. Sites qualify...when they contain at least one unique or high quality feature of statewide significance: native plant communities, geologic formations or processes, paleontological localities, or habitat for rare plants or animals.

As you can imagine, the identification and preservation of these important sites is a difficult and daunting task. We can't go it alone! As part of our Year 2000 Strategic Plan process, an Outreach Plan is being developed. CNAP must serve as a catalyst for Natural Areas preservation. Private landowners, public land managers, and cooperating agencies and private groups are all key partners in the protection effort. We must "get the word out" concerning Natural Areas preservation. Land trusts, and local and county governments are all potential partners in this effort. CNAP can help identify these important sites across Colorado, but it is the landowner, whether public or private, who decides to designate their property as a Natural Area. Designation is a partnership between CNAP and the landowner. The basis of the partnership is an acknowledgement by both parties of the importance of the property's natural features and a commitment to protect them for the long term. Without our partners, it simply couldn't be done. Hats off!

— Bob Finch

Natural Areas Council News

John Singletary was welcomed to the Natural Areas Council during the December meeting. John is the new member from the State Parks Board and hails from Pueblo. He brings a wealth of experience to the Council, having served on the Wildlife Commission as well as being the Parks Board representative to the GOCO Board. The December Council meeting was dedicated exclusively to the Strategic Plan. The Council made a number of changes to the plan, including the addition of an environmental education objective, approved it, and forwarded it to the State Parks Board. The Parks Board formally adopted CNAP's 2000 Strategic Plan at its January meeting.

(continued on next page)

The March meeting highlight was a presentation on the Ken-Caryl Hogback site by Sean Warren, Park Ranger for the Ken-Caryl Ranch Metropolitan District. Ken-Caryl includes numerous natural elements: excellent geologic exposures of the Dakota, Lyons and Lykins formations; examples of foothills mixed-grass prairie, Gambel oak, and xeric tallgrass prairie communities; as well as populations of two rare plant species – Bell's twinpod and forktip three-awn. Council approved the Articles of Designation and recommended Ken-Caryl as a state Natural Area. This proposal will now go to the Parks Board for formal designation. Also, Council meetings for the remainder of 2000 were set: June 4&5 including a site visit, September 18, and December 4.

Friends of Natural Areas

The Friends of Natural Areas is a non-profit group that acts as an advocate for Natural Areas and takes on special efforts critical to protecting our natural heritage. They help to fulfill CNAP's mandate to identify and protect outstanding natural features of Colorado for future generations. Friends can raise awareness of problems and their solutions by

focusing community and media attention; they can communicate with legislators, county commissioners, foundation boards and other decision makers; and they can enjoy natural areas through site visits, environmental education and research assistance.

Recently the Council discussed the merits and details of a strong Friends group. Council recommended a detailed look at how the Friends group should be organized and managed; how it could be used to raise funds for publications and on-the-ground projects; identification of issues that the group should and shouldn't be asked to address; how it differs from the Volunteer Stewards program; and how to raise awareness and membership. Council voted to give the Friends group a boost – to get the word out, convene additional discussions on the above issues, look for a possible President and staff, speak with supportive partners on cooperation, and look into helping with CNAP publications, brochures and mailings. If you are interested in any of these endeavors, please give Bob, our acting Director, a call (see page 2).

CNAP Projects

Colorado Natural Areas Program Publishes Integrated Weed Management Handbook

The fourth volume in CNAP's Caring for the Land Series, *Creating an Integrated Weed Management Plan: A Handbook for Owners and Managers of Lands with Natural Values*, will be released in April. This 349-page handbook is intended to provide the tools and information necessary for public and private landowners to manage noxious weeds successfully in natural areas, wildlands, and rangelands. The handbook presents a series of steps for the preparation of an integrated weed management plan: property description and inventory, formulation of management goals and objectives, setting weed management priorities, selection of management actions, development of an integrated plan, and monitoring plan development and implementation. The book also includes illustrated profiles with line drawings of each of Colorado's state-listed noxious weed species, as well as supplementary information on a variety of weed control methods and resources. Contact CNAP (see page 2) for information on how to obtain a copy.



Yellow toadflax
Linaria vulgaris

CNAP Projects

State Parks Resource Inventory Update



State Parks are areas "having outstanding scenic and natural qualities and...significant archaeological, ecological, geological and other scientific value so as to make

imperative the preservation of the area by the Division of Parks." CNAP and State Parks have recently launched a new approach to fulfill this mandate. It involves on-the-ground assessments of all natural resources in a park, compilation of this into a park-specific Geographic Information System (GIS), and development of a comprehensive stewardship plan for each park. This baseline information will enable the park manager to make informed decisions for protecting the unique natural resources in their trust. And CNAP itself will be able to apply many of these new protocols to natural areas outside of the parks.

Last January, the inventory team developed a stewardship procedures manual that guides the project. It draws on planning structures used by the National Park Service and The Nature Conservancy, and has been adapted to the unique needs of our State Park system. The Roxborough Stewardship Plan has been completed, and Castlewood Canyon is nearly complete (both of these are also Natural Areas). By mid-summer, plans for North Sterling, Colorado River, Eldorado, the Rifle complex, Sylvan, Ridgway, Pueblo, and Trinidad will also be finished.

The stewardship team first meets with the park manager and staff, then completes a draft plan and GIS, and finally incorporates staff input into a final document. After the draft GIS is constructed, the park staff is trained in its use. Susie Trumble and Heather Poe at Roxborough were the first, and they are excited about using the GIS as a management tool. We believe this comprehensive and collaborative planning process will significantly support park managers' efforts in protecting the unique natural values of our state parks.

Making sense of "Identified" Natural Areas

In the CNAP universe there are three kinds of natural areas. **Identified** areas are sites that have been brought to our attention as containing interesting natural elements and that *might* make good natural areas. **Registered** sites are those that the owner, Council and staff agree have values of statewide significance. **Designated** sites have full recognition by the state and a formal management agreement in place.

Over the years, we've accumulated a thick file of identified, potential natural areas – about 130 sites, actually. Each one requires, in theory, an on-the-ground visit by a staff person to evaluate its natural elements and its potential viability. Over the last two years we've been sifting through this large file and prioritizing the whole list of sites as to their likelihood of containing elements of statewide significance. We are visiting as many as we can while we're out on other duties (in the field, we are often pursuing two projects at once in order to optimize limited travel budgets).

We're happy to report that we've finished the prioritization of all 130 sites. There are 8 categories: exceptional sites, high, medium and low significance sites, sites of only local significance, rejected sites, sites at which the landowners are currently not interested in natural area status, and sites for which we need additional information. We've also used this evolving list to prioritize fieldwork, and have reduced the number of sites still needing field evaluations to 14. With a bit of effort -- some of the remaining sites are the most remote ones -- this summer will see this project wrapped up.

2000 Field Season Preview

Preparations for this year's field season are well underway, and staff members will soon take to the roads to visit the mountains, plains, and plateaus of Colorado. CNAP staff are busy prioritizing identified sites, gathering maps, equipment, and information from experts, and contacting landowners. Focal projects for this season include evaluation of potential natural areas nominated by scientists, landowners, or the general public, stewardship assistance to owners of designated Colorado Natural Areas, data collection for a description of the natural plant communities of Colorado, and the continuing resource inventory for Colorado State Parks.



Natural Area Identification and Evaluation

Evaluating potential natural areas is one of the top priorities of the field season. This year, several projects will provide the opportunity to identify and evaluate sites that may qualify for natural area designation.

- The entire staff will coordinate their field schedules to try to complete site evaluations of 14 identified natural areas.
- Ron West will head up an evaluation of State Land Board (SLB) parcels nominated in the second round of the Stewardship Trust. He will also visit SLB parcels in the metro area as part of our on-going state-wide survey of natural resources on State Land Board Lands.
- Kathy Carsey will be meeting with experts throughout Colorado to identify significant geological and paleontological sites in each region of the state.
- Kathy and Rob Fenwick will direct a project designed to identify Colorado's outstanding wetlands and riparian areas. The focus of this year's work will be on playa lakes in the

northeast part of the state, wetlands of all types in the San Luis Valley, and riparian areas in the southeast.

Natural Areas Stewardship Assistance

- In his new role as stewardship coordinator, Ron West will be surveying all of the Natural Area landowners/managers to determine on-the-ground management needs at the sites. He will visit a number of the designated Natural Areas to become familiar with the sites, resources, and management needs. He looks forward to on-site meetings with most of the volunteer stewards.
- As part of our mandate to protect rare and endangered species and representative natural communities, CNAP works with owners and managers of designated natural areas to monitor plant communities and rare plant populations. This year Janet Coles will do her usual rounds of rare plant and natural community monitoring in the Four Corners area, the Piceance Basin, and the Grand Junction area. We also hope to complete the second year of baseline monitoring and the sixth year of weed pulling at Bonny Prairie Natural Area.

Natural Communities Description

- Janet Coles will gather data to complete a description of the natural communities of Colorado. While some vegetation types are well-known and researched, others are less well documented. Janet will travel the state's byways to find good examples of native vegetation.

Resource Inventory

- The Resource Inventory crew will be conducting field work in eight Colorado State Parks this summer: Cherry Creek, Chatfield, Jackson Lake, Steamboat, Cheyenne Mountain, Lathrop, Paonia and Vega.



IMPERILED WILDLIFE AND COLORADO NATURAL AREAS (continued from page 1)

However, our 1977 enabling legislation mandates that we also be concerned with rare wildlife species. Given our successful history with plants, we will focus a bit more on the animal kingdom in the future.

The following list presents wildlife species found and protected in one or more of Colorado's Natural Areas, or, since most wildlife species are mobile, within one mile of the areas. It is probable that additional species, especially birds, would be discovered in the areas if full wildlife surveys were to be completed. Therefore, some species with a very high probability of occurrence are included here. These species are shown in the shaded portions of the table.

These 60 species protected in Colorado Natural Areas represent a significant contribution to the maintenance of healthy populations of rare species in the state.

	Common Name	Scientific Name	Status*
Amphibians	Boreal Toad	<i>Bufo boreas</i>	State endangered
	Canyon Treefrog	<i>Hyla arenicolor</i>	State rare
	Great Basin Spadefoot	<i>Spea intermontana</i>	State rare
	Northern Leopard Frog	<i>Rana pipiens</i>	State rare
	Tiger Salamander	<i>Ambystoma tigrinum</i>	(long-term research site for <i>Ambystoma</i>)
	Wood Frog	<i>Rana sylvatica</i>	State rare
Birds**	American Peregrine Falcon		Federal endangered
	Black Swift		State rare
	Bobolink		State rare
	Columbian Sharp-tailed Grouse		State rare
	Grace's Warbler		State rare
	Gray Vireo		State rare
	Greater Sandhill Crane		State rare
	Least Tern		Federal/State endangered
	Lesser Prairie Chicken		State threatened
	Lewis's Woodpecker		Species of concern
	Northern Sage Grouse		Species of concern
	Ovenbird		State rare
	Piping Plover		Federal/State threatened
	Plains Sharp-tailed Grouse (historical record)		State endangered
	Prairie Falcon		Species of concern
	Sage Sparrow		State rare
	Western Yellow-billed Cuckoo		State rare
	White-faced Ibis		State rare
	Black-necked Stilt		State rare
	Boreal Owl		State rare
	Brown-capped Rosy-Finch		State rare
	Burrowing Owl		State threatened
	Ferruginous Hawk		State rare
	Greater Prairie Chicken		State rare
	Gunnison Sage Grouse		State rare
	McCown's Longspur		State rare
	Mountain Plover		Federal proposed threatened
	Northern Goshawk		State rare
	Northern Pygmy-Owl		State rare
	Veery		State rare
White-tailed Ptarmigan		Species of concern	
White-winged Crossbill		State rare	
Willow Flycatcher		Species of concern	
Wilson's Phalarope		State rare	
Fish	Colorado River Cutthroat Trout	<i>Oncorhynchus clarki pleuriticus</i>	State rare
	Greenback Cutthroat Trout	<i>Oncorhynchus clarki stomias</i>	Federal/State threatened
	Plains Topminnow	<i>Fundulus sciadicus</i>	State rare
	Northern Redbelly Dace	<i>Phoxinus eos</i>	State endangered



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	Common Name	Scientific Name	Status*
Mammals	Cliff Chipmunk	<i>Tamias dorsalis</i>	State rare
	Dwarf Shrew	<i>Sorex nanus</i>	State rare
	Ord's Kangaroo Rat	<i>Dipodomys ordii priscus</i>	State rare
	Preble's Meadow Jumping Mouse	<i>Zapus hudsonius preblei</i>	Federal/State threatened
	Pygmy Shrew	<i>Sorex hoyi montanus</i>	State rare
	Silky Pocket Mouse	<i>Perognathus flavus sanluisi</i>	State rare
	White-tailed Prairie Dog	<i>Cynomys leucurus</i>	Species of concern
Reptiles	Brazilian Free-tailed Bat	<i>Tadarida brasiliensis</i>	State rare
	Swift Fox	<i>Vulpes velox</i>	State rare
	Common Kingsnake	<i>Lampropeltis getula</i>	State rare
	Desert Spiny Lizard	<i>Sceloporus magister</i>	State rare
	Longnose Leopard Lizard	<i>Gambelia wislizenii</i>	State rare
	Texas Horned-Lizard	<i>Phrynosoma cornutum</i>	State rare
Variable Skink	<i>Eumeces multivirgatus gaigeae</i>	State rare	
Western Yellowbelly Racer	<i>Coluber constrictor mormon</i>	State rare	
Lined Snake	<i>Tropidoclonion lineatum</i>	State rare	



* Based on official federal and state lists, as well as rankings from the Colorado Natural Heritage Program.

** Birds are limited to breeding species, not migrants or occasionals. Scientific names for birds are omitted, since common names are standardized.

NEW STEWARDS (continued from page 1)

One of the more difficult sites to get to, Wheeler Geologic Area is now watched over by Dr. Janet Potter of nearby (in the summer) Lake City. Lori Brummer of Gunnison has volunteered to look in on both South Beaver Creek and Mexican Cut natural areas (at 11,500 feet, Mexican Cut is also a summer kind of place). Dr. Scottie Willey, also of Gunnison, has moved from our Natural Areas Council and into the stewardship of Mt. Emmons Iron Bog – a site she was instrumental in designating. Also on the western slope, the joint team of Jeanne Wenger of Glade Park and Cindy Carlson of Grand Junction are checking in on Escalante Canyon on the Uncompahgre Plateau.

In the northern Front Range, Joe Rocchio of Livermore has taken on Owl Canyon Natural Area

and its ancient pinyon groves. Tamara Nauman, on staff at Dinosaur National Monument (and also an ex-staffer here at CNAP), has taken on Moffat County's Raven Ridge and its numerous rare plant species. Julia Wilson of Lakewood is covering both Specimen Mountain in Rocky Mountain National Park, and Castlewood Canyon in Douglas County. And finally, as our most heavily booked steward, Geoff Wood of Denver has volunteered for three sites – Mt. Goliath, just west of town, and Jackson County's East Sand Dunes and North Park Phacelia. As you can see by the geographic range of these stewards, they contribute a great deal of logistical and monitoring support to CNAP's mission of protecting Colorado's unique places. Thanks to all of you!

Welcome to New CNAP Staffers

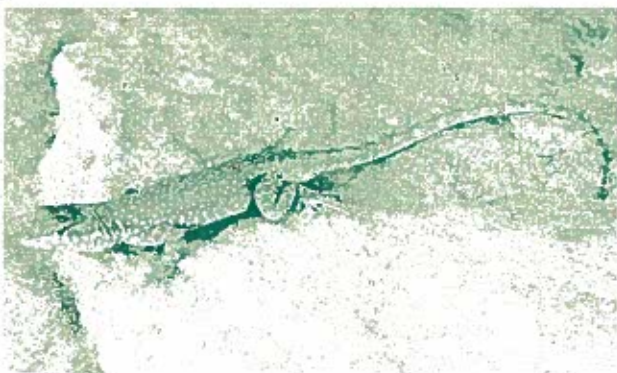
Since our last newsletter in November, a number of seasonal and contract employees have come on board, primarily to support the natural resource inventories of the state parks (see related article in this edition). Julie Baxter, Wendy Newman, Bob Tucker, and Alexis Wolff are all busy either collecting field data, building state park GIS systems, or writing stewardship plans. William Barfuss is volunteering with us in the same capacity. Kim Fayette and James Riser are helping Janet in her endeavors to complete a plant community classification for all of Colorado. Often times, the bountiful work efforts of our temporary staff are the only way we get projects to a state of completion. Thank you!

Natural Area Profile: McElmo

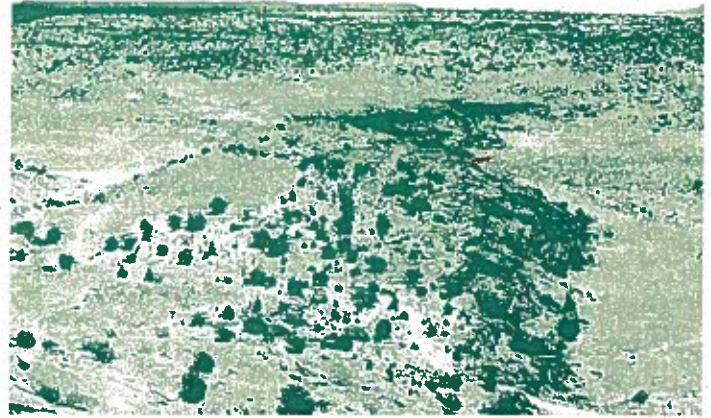
It's about as far as you can get from Denver and still be in Colorado - about 8 ½ hours of driving and a high clearance vehicle will get you there. Needless to say, it is one of Colorado's least-visited Natural Areas, but its isolation is a great part of its value. McElmo's inhabitants thrive on being left alone.

Located on the Utah-Colorado border about 25 miles west of Cortez, the 433-acre McElmo Natural Area occupies Bridge Canyon, a tributary of McElmo Canyon. The setting is typical of the region - a broad, dry, rocky canyon with sparse pinyon-juniper and salt-desert shrub vegetation. Two things set this area apart from its surroundings: the reptiles and the Bridge.

Bridge and McElmo canyons have long been recognized as hotspots of animal biodiversity in Colorado. According to a 1977 report by Bruce Bury and later work by Geoff Hammerson, the McElmo Natural Area and its immediate surroundings contain 13 species of snakes, lizards and amphibians, with at least another six species possible. This makes it one of the richest areas in the state for these animals. This fact alone would make the site significant. An added bonus is that several of the species are rare in Colorado, including the common kingsnake (*Lampropeltis getula*), the desert spiny lizard (*Sceloporus magister*) and the long-nosed leopard lizard (*Gambelia wislizenii*).



Side-blotched lizard (*Uta stansburiana*)



The "Bridge" in Bridge Canyon — McElmo Natural Area

The common kingsnake is widespread through the U.S. In Colorado it is known only from the Four Corners area and parts of the lower Arkansas River drainage. The snake's skin has white bands or stripes on a black body. Adults are usually two feet long. The kingsnake is an aggressive predator, preying on rodents, birds, eggs and other reptiles, including lizards, rattlesnakes and bull snakes.

The desert spiny lizard is known in Colorado only from the Four Corners. Otherwise it occurs throughout northern Mexico and the southwestern U.S. This lizard prefers semi-arid shrublands or grassy plains near drainages. This diurnal lizard is very wary and will flee into hiding when threatened. It forages for insects, smaller lizards, and tender vegetation.

The longnose leopard lizard is also found throughout the western U.S. In Colorado, this large, distinctively patterned lizard is known only in the Four Corners and from the floor of the Grand Valley near Grand Junction. The leopard lizard's natural habitat has sparse plant cover that offers plenty of running room. When fleeing predators, this lizard tucks its front legs against its body and runs upright. According to Geoff Hammerson, this species' habitat has probably been significantly restricted in Colorado. This is due to conversion of

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its preferred valley floor habitats to agriculture or to dense stands of cheatgrass, which interferes with the animal's movement.

The Bridge is Bridge Canyon's other, and more conspicuous, natural feature. The Morrison Formation is a series of alternating hard sandstone and softer shale rock layers, into which Bridge Canyon is cut. One especially hard layer of sandstone resisted erosion as the valley deepened, and was left exposed as a "bridge" spanning the valley floor. The center of the bridge has collapsed, as have its downstream edges.

McElmo was brought to the CNAP's attention early on and was one of the first sites considered for designation. It was registered in 1979 and designated in 1986. The site was on the BLM's radar as early as 1964 thanks to the efforts of members of Fort Lewis College's biology department, who had been taking students there for decades. It was recognized as a significant biological area by the International Biological Programs in 1970 and was designated as the McElmo Rare Lizard and Snake Research Natural Area by the BLM in 1973.

McElmo, despite its isolation, is far from pristine. Heavy sheep grazing prior to the establishment of the natural area converted much of the understory

in the salt desert and greasewood shrublands from native bunchgrasses and desert forbs to cheatgrass. The area was fenced to exclude unauthorized domestic livestock in 1986 and the vegetation has recovered somewhat. A complete restoration of the native vegetation would require a concentrated investment of resources, although techniques to replace cheatgrass with native bunch grasses continue to advance. Without question, restoration of native vegetation on the floor of the canyon would improve the habitat for the many lizards and snakes of the McElmo Natural Area.

Reptiles and amphibians known to occur within the McElmo Natural Area:

- Tiger salamander
- New Mexico spadefoot toad
- Red-spotted toad
- Woodhouse's toad
- Collared lizard
- Longnose leopard lizard
- Side-blotched lizard
- Desert spiny lizard
- Northern plateau lizard
- Tree lizard
- Western whiptail
- Bullsnake
- Western rattlesnake

Reptiles known to occur near the Natural Area and likely to occur there:

- Lesser earless lizard
- Sagebrush lizard
- Plateau striped whiptail
- Short-horned lizard
- Common kingsnake
- Striped whipsnake

photos courtesy of McElmo's volunteer stewards:
Peter and Marian Rohman



Tree lizard (*Urosaurus ornatus*)





FRIENDS OF COLORADO NATURAL AREAS APPLICATION

*I/We wish to join or renew our membership in Friends of Colorado Natural Areas!
(Choose among these annual tax-deductible memberships)*

\$15 Individual \$25 Family \$8 Student or Senior

A larger gift is greatly appreciated and will help protect individual natural areas.

\$50 \$100 \$1000

Name(s) _____

Phone () _____

Address _____

Fax () _____

City _____ State _____ Zip _____

Yes, I would like to be a volunteer.

Make checks payable to: Friends of Colorado Natural Areas
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