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PROTECTING FLORIDA'S ENVIRONMENT

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Suggestions for Individual Action

**FLORIDA
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COLLEGE PROGRAM



1991

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Florida's Environment:

YOU CAN MAKE A DIFFERENCE

The information in this brochure resulted from a series of made-for-television interviews conducted by Florida Sea Grant during 1990. The interviews later formed the basis for numerous environmental news stories broadcast by commercial television stations throughout Florida. Funding for this project was provided through a grant received from the Governor's Office of Environmental Affairs.

PROTECTING FISH HABITATS

Spokesperson: Penny Hall, Department of Natural Resources, St. Petersburg

Urban and agricultural runoff, coastal construction, drainage pattern changes and industrial releases of warm water have hurt Florida's fish populations. And now, it's beginning to look like some important fish species no longer consider Florida to be a good place to raise a family. Here are some things you can do to help protect fish habitats:

- Prevent lawn and garden fertilizers from reaching our rivers and coastal waters.
- Learn more about fish habitats.
- Participate in public planning meetings to insure that fish habitats receive the proper attention.

SAVING THE WETLANDS

Spokesperson: Iliana Quintero, Department of Natural Resources, St. Petersburg

Besides being places of exquisite beauty, our wetlands serve as nurseries for important fish species, buffer coastal areas from storms, and prevent storm surges. Despite all the good they provide, during the past 30 years nearly one-third of Florida's wetlands have been destroyed by highway construction, dredging, irrigation projects, urban development and pollution. To help save our wetlands:

- Reduce the amount of pesticides and fertilizers that go into waterways.
- Use products that are completely biodegradable.
- Insure that growth managers design plans that protect the wetlands.

AQUIFERS

Spokesperson: Bill Hennessey, Southwest Florida Water Management District, Brooksville

Nearly every drop of water consumed by Floridians comes from natural underground reservoirs called aquifers. In Florida, these water-bearing formations are frequently just beneath our feet. That means we have to be extra careful about protecting these sources of freshwater. For instance:

- Don't dump used motor oil on the ground--it will soon soak into an aquifer.
- Always remember that whatever you spray, pour, or dump on your yard could easily seep into an aquifer--and that's where your next drink of water is coming from.

TURTLE PROTECTION

Spokesperson: Donna Devlin, Center for Marine Conservation, St. Petersburg

All of Florida's sea turtles are listed as either threatened or endangered. But we can help stop the countdown to extinction for these creatures.

- Don't leave plastic on the beach.
- If you see discarded plastic, please put it in the garbage. Turtles often mistake bags and wrappers for jellyfish--one of their favorite food. But, ingested plastic can cause a slow and painful death for turtles.
- Keep motel and other outdoor lights turned off near turtle nesting areas. Young turtles instinctively head for bright lights. In a natural environment, the bright area is the sea and safety. Your lights can lead them away from the sea and into areas where they will quickly die.

FREEING SNARED BIRDS

Spokesperson: Ernie Simmons, Suncoast Seabird Sanctuary, Indian Shores

Finding a seabird entangled in discarded hook and line on the beach and doing nothing will condemn the bird to death from infection or starvation. But doing the wrong thing could harm both you and the bird. Here's what to do:

- An entangled bird will try to defend itself. Be careful!
- Grab the beak first, then fold the wings against the bird's body and hold them there by wrapping your arm around the bird.
- While holding the bird, have a companion untangle the line from the bird.
- If a hook is embedded, push it through to where you can cut off the barb--then back the hook out.
- Carefully release the bird to the wild.

CORAL CARE

Spokesperson: Pete Anderson, Department of Natural Resources, Sebring

Florida's coral reefs are one of the state's most unique and popular attractions. Unfortunately, some visitors are seriously damaging these fragile ecosystems. Help protect our coral reefs.

- When boating, approach reefs with caution. Running aground causes serious harm to the coral, as well as to your boat.
- Use mooring buoys. If there aren't any, drop anchor in the sand--not on the coral!
- Avoid breaking the delicate coral by never touching it or standing on the reefs.
- Don't remove coral. Only take pictures.

DEADLY SNARES

Spokesperson: Barbara Suto, Suncoast Seabird Sanctuary, Indian Shores

Monofilament fishing line may look harmless, but if carelessly discarded it can create a deadly snare for birds and marine creatures. Here's what you can do to help protect coastal birds:

- Don't feed birds fish scraps or other food that might encourage them to come near people fishing.
- If birds approach you while you're fishing, scare them away.
- Don't cast a baited hook when a bird is flying by--you might snare it or the bird might grab the bait.
- Always properly dispose of fishing line and other plastic debris . Many fishing piers and baitshops have special disposal containers.

PESTICIDE PERIL

Spokesperson: Lou Kavouras, Southwest Florida Water Management District, Brooksville

The pesticides we use to get rid of Florida's bothersome bugs can be extremely harmful to the environment and downright dangerous to humans, pets, and wildlife. Before you spray pesticides, make sure you:

- Identify the pest--there's a good chance that the bug actually helps improve your yard.
- Check with your County Extension Office to see if there is a natural "pesticide" that you could use.
- Follow the directions on the label--be careful not to use more than is needed.
- Keep pesticides away from streams and ponds.

RESPONSIBLE AUTO CARE

Spokesperson: Dr. Randall Stovall, Valencia Community College, Orlando

Despite technical advances to help curb harmful auto emissions, it's still up to each car owner to make sure their cars don't pollute our air and water. Here are some things car owners can do to help improve the environment:

- Make sure your car is tuned-up so that you get the maximum fuel efficiency with the minimum harmful emissions.
- Don't use your car needlessly or allow it to sit and idle just to keep the A/C running.
- If you change your own oil, make sure you take it to a recycling center for disposal.
- Ride a bike, carpool, or use public transportation whenever possible.

WILDLIFE RESPECT

Spokesperson: Dr. Joe Schaeffer, University of Florida, Gainesville

Raccoons, woodpeckers, snakes, and many other wild critters play an important role in making Florida's environment special. But they can also cause problems for homeowners. Before you try to rid your property of these pesky critters, here are some things to consider

- Most wild animals are protected by federal or state laws. Violators of these laws can be fined heavily.
- Most animals can become dangerous when cornered--don't try to move them.
- Always check with the Game and Fish Commission or your County Extension Office. They can give you advice on how to rid your property of unwelcome animals.

BEACH CLEANUPS

*Spokesperson: Cindy Bear, Lee County
Department of Environmental Education,
Ft. Myers*

Every September, thousands of Floridians gather to give our beaches an annual cleanup. Although the more than 18,000 volunteers who participated in 1990 picked up nearly 200 tons of garbage, there's still much to be done. Here are some things you can do to help:

- **Don't litter!**
- **If you see litter on the beach, especially plastic, pick it up and dispose of it properly.**
- **Participate in the next beach cleanup in your area. To find out how, contact your County Extension Office or the Center for Marine Conservation in St. Petersburg.**

ESTUARY PROTECTION

*Spokesperson: Jane Urganhart-Donnelly,
Department of Natural Resources, Terra Ceia
Aquatic Preserve*

Estuarines, where rivers meet the sea, have always attracted animals, fish and humans. Estuarines not only provide homes for important commercial and recreational fish species, but their shorelines are also a popular place for people. Here are some things you can do to help make these elements compatible:

- **Stop littering! Human litter often ends up in the mangroves surrounding estuaries where it can kill birds and animals.**
- **Keep your boat out of seagrass beds. These are nurseries for many marine species.**
- **Support legislative efforts designed to protect estuaries.**

PROTECTING RARE PLANTS

Spokesperson: David Hall, University of Florida, Gainesville

Florida's lush vegetation contains more than 3,800 different plant species. Not only do these plants provide beauty and diversity to our wildlands, they could also hold the cure to some of humanity's most serious diseases.

Unfortunately, some of these plants are so rare that their continued existence is endangered. The destruction of only a few of these rare plants could easily lead to extinction for the entire species. Here are some things you can do to help protect rare plants:

- If you see an unusual plant--don't pick it. Contact your local college or County Extension Office to have a botanist come and identify the plant.
- If rare plants are found in your community, get involved in local land use planning to insure that the plants are protected.



HELP PROTECT WILDLIFE

Spokesperson: Lt. Julie Jones, Game and Fresh Water Fish Commission, Lakeland

The Sunshine State's wildlife is an inspiration

to residents and visitors alike. Unfortunately, some people view wildlife as just something else to be exploited. Help the Game and Fresh Water Fish Commission protect our wildlife by:

- Reporting violations you see immediately by calling the toll free Wildlife Alert number listed in the front of your local telephone directory. All calls remain confidential.
- Trying to get a license number of the violator's vehicle or any other information officials could use to find those responsible for the crime. (Remember, rewards for the information range up to \$1000.)

DEADLY INTRUDERS

Spokesperson: Peter Octagon, Octagon Wildlife Refuge, North Ft. Myers

Florida leads the nation in the importation and breeding of exotic animals--non-native animals that are brought to this country and are sold as pets. But, care of exotic animals can be hard and sometimes dangerous work. As a result, owners turn loose thousands of exotic pets in the wild in Florida each year. Once loose, these animals survive by killing our native species for food and habitat. To help stop this cruel invasion:

- Don't purchase exotic animals as pets.
- If you have a troublesome exotic animal as a pet, don't turn it loose. Take it to one of the state's refuges for unwanted exotic animals.
- Instead of getting an exotic animal as a pet, go to your local animal shelter and give a home to an unwanted dog or cat that will repay you with years of loyalty and affection.

STOP ILLEGAL DREDGERS

Spokesperson: Lt. Julie Jones, Game and Fresh Water Fish Commission, Lakeland

When most Floridians hear the words "dredge and fill," they think of huge barges spewing tons of muck from the river bottom or offshore dredges that move islands of sand. Surprisingly, most dredge and fill are conducted on a much smaller scale. Many homeowners do their own dredging to improve their property.

Unfortunately, when they dredge without the proper permits and guidelines, the results can be devastating for local wetlands and the animals that live there. An illegal dredger can often do more wildlife damage than a poacher--that's why the Game and Fresh Water Fish Commission cautions people to get the required permits before dredging. To help eliminate illegal dredging:

- Report suspected violations by calling the toll free Wildlife Alert number in the front of your local telephone directory.
- Before beginning any landscaping project that might affect wetlands, check with your local water management district office to see if you need a permit.

FISHING REGULATIONS

Spokesperson: Maj. Jenna Venero, Florida Marine Patrol, Tampa

Florida is an angler's paradise. But to insure that today's fishing will be just as good for the next generation, it's essential that we all follow the rules. And how do you stay within the rules?

- Make sure you know all of the regulations. Copies of these are available from the Game and Fresh Water Fish Commission and the Department of Natural Resources

or most bait shops.

- Before you go fishing, make sure you read the rules that apply to the species you are going to catch.
- Make sure you have your freshwater fishing license. You may also need to purchase a saltwater fishing license. (Remember, a license is required to catch or harvest marine creatures such as oysters and spiny lobsters.)
- Help protect our fisheries. Report violations by calling the toll free numbers for the Florida Marine Patrol or Game and Fresh Water Fish Commission.

HELPING INJURED ANIMALS

Spokesperson: Louie Pierson, Amber Lake Wildlife Refuge and Rehabilitation Center, Inglewood

Sooner or later, just about anyone who spends time enjoying Florida's great outdoors will encounter an injured animal. Our first instinct is to help the unfortunate creature. But what should we do?

- Don't touch or move the animal unless it is absolutely necessary. Touching the animal often increases the stress it is experiencing, moving the animal can increase the severity of the injury, and an injured animal will likely try to bite you.
- Observe the animal to try to determine the extent of its injuries.
- As soon as possible, call the Game and Fresh Water Fish Commission's toll free number in the front of your telephone directory. They will give you the name and location of the nearest licensed animal rehabilitator in the area. Rehabilitators are especially trained to help injured wildlife.

MANATEE PROTECTION

Spokesperson: Capt. Alan Marsden, Florida Marine Patrol, Ft. Myers

The magnificent manatee is one of Florida's most distinctive creatures. Known as the "gentle giant," this huge but harmless mammal has also become a symbol of Florida's continuing conflict between people and nature--a conflict that threatens the continued survival of the manatee. But there are some things you can do to help eliminate one of the leading causes of manatee fatalities-- collisions with powerboats.

- Slow down! Warning signs have been posted in known manatee habitats, please obey them.
- Be observant. Wear polarized sunglasses to make it easier to see manatees just beneath the water's surface.
- Keep your boat in the middle of the channel and away from seagrass beds. Manatees often are found close to shore and in seagrass beds.
- Don't feed manatees or encourage them to come near your boat.
- If you see an injured manatee or observe people harassing manatees, report it by phone at 1-800-DIAL-FMP.



FLORIDA'S FUTURE

Spokesperson: Nathaniel Reed, Governor's Commission on Florida's Future Environment, Jupiter

Planning for the future is a major concern of every Floridian. But as we plan for our economic, educational, and health needs, we should also consider the future of Florida's environment. Environmental education and the acquisition of environmentally sensitive lands are essential to insure a healthy future for our environment--a future we can all help shape. Here's how:

- Get involved in your community's comprehensive planning process. These plans are the blueprints for the future of your city and county.
- Even if you just became a resident of Florida, think of yourself as a Floridian--not as someone who is on a long-term vacation. Remember, this is your state--get involved in protecting it. (For a free copy of the Commission's recommendations on the future of Florida's environment, call the Governor's Office of Environmental Affairs at (904) 488-5551.



TREATING BEACH STINGS

Spokesperson: Jay Leverone, Mote Marine Laboratory, Sarasota

Each year, millions of visitors and residents enjoy Florida's magnificent beaches. We should always remember though that people share the surf and sand with other creatures too--some of whom can be less than hospitable. Jellyfish, sea nettles, and the Portuguese man-of-war are a few of the creatures that can inflict painful stings on the unwary. Although the chance of encountering one of these creatures is pretty remote, you can reduce the chances of being stung even more (and lessen the pain if you are) by:

- Paying attention to warnings posted at public beaches by lifeguards.
- If you get stung, flush the affected area **with** saltwater. Don't use freshwater--it will prolong the stinging.
- Apply vinegar or rubbing alcohol to the sting.
- Avoid home remedies such as perfume, liquor, or shaving lotion. Meat tenderizer is not recommended because it may actually prolong the stinging sensation.
- If the sting is severe, obtain immediate medical attention.



Jollyfish

SEAGRASS PROTECTION

Spokesperson: Penny Hall, Department of Natural Resources, St. Petersburg

Seagrass beds are essential for the survival of many of Florida's fish and marine creatures. The thick beds of grass provide protection from predators and create an ideal place for laying their eggs and raising their young. But, human activities are threatening to destroy much of this habitat. To help curb our impact on these areas:

- Don't use excessive amounts of fertilizers and pesticides on your yard--these can easily drain into coastal waters and seagrass beds.
- Always recycle used motor oil--if you dump it out, the oil could seep into coastal water.
- Keep your boat out of seagrass beds. If you do run aground in seagrass, don't use the motor to plow your way out. Get out of your boat and push it back into deeper water.

PLASTIC PERIL

Spokesperson: Herb Washington, Environmental Services, Orlando

Because of its low cost, light weight, and durability, plastic was once hailed as a miracle product. However, the popularity of plastic has created problems for solid waste managers who must find a way to dispose of it. By weight, plastic accounts for only four to five percent of landfill material, but by volume it takes up 10 to 12 percent of landfills. And, we're running out of places to put the plastic. Here's how to help:

- Be a smart shopper. Choose products that come in non-plastic containers.
- Recycle. Recycling takes plastic that would remain buried in the landfill for hundreds of years and converts it into useful products like park benches.

DIVING FOR DATA

Spokesperson: Joe Halusky, Florida Sea Grant College Program, Marineland

Florida's artificial reefs come in many forms--old concrete culverts, sunken ships, even specially designed structures. They all seem to attract fish and fishermen. They have become so popular that nearly every coastal city and county wants to have a few artificial reefs. But how effective are the reefs? What's their impact on the environment? Few communities can afford to pay scientific divers to find out. Luckily, there may be other ways to get these answers:

- Contact local recreational divers to see if they would be interested in volunteering to help monitor the reefs.
- Check with your local County Extension Office to see if the Sea Grant agent can arrange workshops to train recreational divers to collect scientific information.



FRIENDLY FIRE

Spokesperson: Michael Long, Division of Forestry, Tallahassee

Ever since the first settlers came to Florida,

fire has served as an important tool for land management. Today, fire can meet many needs --but it's good to remember that if not used wisely, fire can easily destroy thousands of acres. If you are considering using fire on your property, make sure you do the following:

- Contact the local office of the Division of Forestry to get advice and the necessary permits.
- Check the weather and wind before starting the fire. Once lit, never leave it unattended.
- Make sure you have enough people and equipment to control the fire.

DUNE PROTECTION

Spokesperson: Patricia Garner, Coastal Dunes, Inc., Sarasota

Florida's sand dunes are a perfect combination of beauty and function. They form the backgrounds for some of our best vacation memories while their slopes provide a very real protection against the ravages of a stormy sea. But, our enthusiasm for living and playing among the dunes causes serious problems for this fragile part of Florida's environment. To insure that you don't increase the problem:

- Use walkover structures whenever possible to prevent further damage to the dunes.
- If walkover structures aren't available, stay on the footpaths leading through the dunes.
- Never pick or damage sea oats. These important plants hold the dunes together and removing only a few can cause serious damage. (It's also illegal to pick sea oats.)

STEWARDSHIP

Spokesperson: Joe Halusky, Florida Sea Grant College Program, Marineland

The popularity of environmental movements devoted to a particular cause often seem to thrive on sensational headlines and attention getting protests. But here in Florida, a new and quieter environmental movement is growing in popularity. Called "stewardship," this movement rejects mass protest in favor of emphasizing the individual's role in being a good steward of our environment. Stewardship and the individual's responsibility in protecting the environment are being advocated by community leaders, including the clergy, throughout the state. If you'd like to learn more about this individual approach to environmental protection:

- Talk to your clergyman and get his or her ideas on environmental responsibility.
- Make a commitment toward improving the environment.
- Visit your local County Extension Office to find out more about local environmental problems and what you can do to help solve them.
- Take a stand for the environment and make sure your personal life reflects a commitment to being a good steward.

FLORIDA'S UNIQUE ENVIRONMENT

Spokesperson: Wayne Frederich, Florida Campground Association, Tallahassee

Florida's unique environment is not only an inspiration to residents, it is something we share with nearly 40 million visitors each year. In fact,

the environment is the state's most important product--a product whose continued quality is often in the hands of those who only spend a few weeks here each year. Most visitors realize just how different Florida is from other states, but some need to be reminded that we need their help to protect the environment. Here are some things you can suggest to visitors:

- Enjoy yourselves! But please don't litter--we like to keep our highways clean.
- Please don't abandon your beach chairs, coolers, and other vacation items. Take them back north with you.
- Take the time to learn and appreciate the uniqueness of Florida's environment. The more you understand, the more you'll want to do to help us protect the Sunshine State.

TOURISTS CAN HELP

Spokesperson: Barbara Ann Frederich, Florida Tourism Advisory Council

There's little doubt that 40 million visitors do have an impact on Florida's environment. But most experts agree the impact is much less severe than most Floridians imagine. To help encourage continued environmental respect by our visitors:

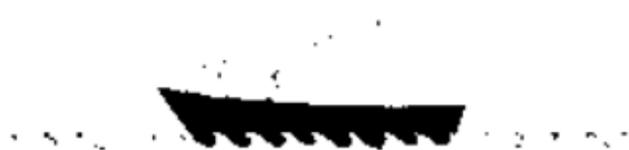
- Floridians should set a good example. By keeping our state clean, it encourages visitors to follow our example.
- Remind visitors that water is precious here --don't leave faucets running.
- Recycling is important in Florida--please take advantage of the recycling bins and statewide collection centers.

CATCH AND RELEASE

Spokesperson: Captain Joan Garisto, Charter Boat Operator, Key Biscayne

Anglers in Florida's waters no longer see interested in talking about the "one that got away." Instead, they seem anxious to tell you about the one they let go. Called "catch-and-release," this new approach to fishing not only adds excitement to the sport is also essential for conserving many important species of game fish. But to be successful catch and release, don't forget:

- Make sure you have the right equipment.
- Use hooks and leaders that will easily corrode in water so that if you have to leave the hook in the fish, it will eventually dissolve.
- Have a hook remover or needle-nose pliers handy to make it easier to free the fish.
- Push down the barbs on your hook to make it easier to release.
- Handle the hooked fish gently and keep the fish in the water as long as you can.
- Never jerk the hook free.
- To calm the fish, turn it on its back.
- Release the fish gently--don't throw it overboard.



TOURISTS SAVE WATER

Spokesperson: Sandra Higgs, Monroe County Tourist Development Council, Key West

Most of Florida's 40 million annual visitors don't realize how rare and valuable fresh water is here. But once they do, most are happy to do their part to conserve water. Here are some ways tourists can help save our precious water:

- Report dripping faucets or leaking pipes immediately to your hotel/motel manager.
- Be aware that most Florida restaurants serve water only if you ask for it.
- Don't leave the water running in public restrooms.
- Turn off the water while brushing your teeth or shaving.

SAVE THE QUEEN

Spokesperson: Janet Gregory, Marathon Garden Club, Marathon

The beautiful shell of the Queen conch has become an unofficial symbol of the State of Florida and one of the most popular items for tourists to take home with them. Unfortunately, the fate of the Queen conch is now in doubt. Poachers illegally remove thousands of conchs each year to sell the tourists and restaurants. Scuba divers and snorkelers also take conchs from Florida's reefs. Here are some things we can do to help insure the Queen conch's future:

- Don't buy conch shells or take them from reefs.
- Don't buy conch fritters or conch chowder at restaurants.
- Report illegal removals of conchs to the Florida Marine Patrol, 1-800-DIAL-FMP.

FLORIDA'S VANISHING ANIMALS

Spokesperson: Steve Humphrey, Florida Museum of Natural History, Gainesville

Florida's unique environment provides a home for some of America's most distinctive wildlife. Unfortunately, urban development and other human activities have destroyed so many of these creatures that few of us will ever see them in their natural habitat. But to help protect those still out there:

- Obey highway warnings that animals may be crossing the road ahead.
- Learn more about Florida's wildlife and the hazards they face.
- Support recovery plans designed to protect and increase wildlife populations.

NATIVE VEGETATION PLEASE

Spokesperson: Norma Jean Byrd, The Nature Conservancy, West Palm Beach

Florida's climate supports a variety of vegetation, including some plants that definitely don't belong here. Over the past 100 years, people have transplanted and helped establish some of the most troublesome plants found in the Sunshine State. These non-native plants crowd out native plants, eliminating sources of food for wildlife --even creating fire hazards. To help protect native vegetation:

- Before purchasing plants for landscaping your property, make certain the plants are native to Florida.
- Don't allow visitors to dig up native plants to take home with them to other states.
- Participate in local "exotic removal days" during which volunteers dig up and destroy non-native vegetation.

JOYS OF COMPOSTING

Spokesperson: Wayne Smith, University of Florida, Gainesville

Floridians sometimes seem obsessed with keeping their lawns neatly manicured. While that certainly enhances the beauty of our neighborhoods, the resulting tons of grass clippings create major waste disposal problems. Beginning in 1991, many major landfills will no longer accept grass clippings. So what are we going to do with all of those clippings? Most experts suggest we should all start composting. Composting is a natural process that converts plant material into a highly effective fertilizer. Here's how to get started:

- Create a pile of grass clippings in your backyard. As you add to it, the pile will begin to decompose into compost.
- Check into purchasing commercially available composting bins or containers.
- Visit your County Extension Office for more information on effective composting.



LAYERING OF COMPOST PILE

OIL SPILL PREVENTION

Spokesperson: Deborah Tucker, Governor's Office of Environmental Affairs, Tallahassee

Every Floridian seems to agree that a massive oil spill like the one that devastated Alaska's waters would be an even greater environmental and economic disaster if it happened here. As a result, Florida's officials, citizens, and scientists are working feverishly to create safeguards to prevent such a disaster. You can help too.

- Write to your state legislators and tell them you support their efforts to reduce the possibility of a oil spill in Florida's waters.
- By car pooling, using alternative energy sources, and reducing our demands for oil we can reduce the number of oil shipments that are made to Florida.
- Be careful not to create your own "mini" spill --dispose of used oil properly and don't allow your boat's fuel tank to overflow.



ANIMAL HIGHWAYS

Spokesperson: Lurry Harris, University of Florida, Gainesville

Florida is one of the nation's leaders in developing highways that reduce collisions

between animals and automobiles. While these efforts have indeed helped, it's still up to individual drivers to be careful when animal highways and human highways intersect. Here are some things you can do to help:

- Obey signs warning of animal crossings.
- Be especially careful if you're driving at dusk or dawn--that's when animals are most likely to be on the move.
- Support efforts designed to find better ways to reduce collisions with wildlife.

WETLAND VALUES

Spokesperson: Jim Cato, Florida Sea Grant College Program, Gainesville

Everyone agrees Florida's wetlands are valuable, but opinions differ when it comes to putting a price tag on the value of the fish and wildlife habitats they provide. In recent years, the State of Florida has purchased thousands of acres of wetlands to protect them from development--but has this been a good deal for the taxpayers? A recent Sea Grant study showed that such purchases were actually a bargain. For instance, based only on the economic contributions made by wetlands to the state's commercial and recreational fishing industries:

- An acre of wetlands on the west coast of Florida is worth \$2,300.
- An acre of wetlands on the east coast is worth \$9,800.
- State purchases have been less than these values, so such purchases make economic sense. In fact, when the non-fishing benefits of wetlands are included the state purchases are an even bigger bargain for the taxpayers.

ENVIRONMENTAL HEROES

Spokespersons: Nathaniel Reed, Jupiter Beach; Louie Pierson, Englewood; and Dan Gregory, Marathon

The most visible examples of successful environmental action always seem to involve tens of thousands of people who march, protest, and contribute money to the cause. But what about the actions of individuals? Can each of us really make a difference? Judging from what has been accomplished in Florida, the answer is a resounding YES! Three people whose work has made a real difference for the environment make the following suggestions for anyone who wants to change things for the better:

- Learn about the environment. Anyone who wants to help the environment must first gain an understanding of how the natural world functions.
- Learn about the decision-making process as it relates to environmental issues. Without an understanding of the political and economic forces that influence Florida's environment, it is difficult to create positive changes.
- Work with enthusiasm and lots of positive thinking.
- Get involved. You may not be able to devote your life to the environment, but if you can spare just a few minutes each day to help improve the natural world you can make a difference.

NATURAL RESOURCE ECONOMICS

Spokesperson: David Gluckman, Gluckman and Gluckman Associates, Tallahassee

Florida's natural resources are the backbone of our economy--an economy whose health

depends on how well we protect the environment. While we're not in danger of running out of natural resources, human activities can lessen the value of these resources. What can we do to protect our future?

- Understand Florida's natural resources and the factors that influence their use.
- Use this understanding to work effectively in protecting the investment we all have in the future of Florida's natural resources.

ENVIRONMENTALLY SAFE CAMPING

Spokesperson: Steve Robinson, National Park Service, Everglades National Park

Hiking, canoeing, and camping are three of the best ways to enjoy the almost mystical beauty of Florida's remote backcountry. But before you dip your paddle into the water or pitch your tent, you should always remember:

- Freshwater is often in short supply in the backcountry--be sure you bring sufficient quantities with you.
- Paddling a canoe can be much more difficult in Florida than in other states. Be prepared for heat and fatigue.
- Use a cookstove instead of a campfire if possible. Forest fires are always a danger in Florida. Also, firewood is usually in short supply in coastal areas. If you build a fire on the beach, place it where the next high tide will wash away its remains.
- Don't feed wildlife or encourage them to seek food from humans.
- Take out everything you bring into the backcountry. Leave only your paddle wake and footprints behind.

VOLUNTEERS

Spokesperson: Marji Fuller, National Park Service, Everglades National Park

A visit to Florida's magnificent parks is often one of life's great experiences. Park visitors who return and become park volunteers often have even more meaningful and rewarding visits. To find out how to volunteer:

- Write for an application to the state or national park or forest that interests you.
- If they don't have applications or a volunteer program, don't be discouraged. Simply send a letter outlining your skills and abilities and let them know when you can be available to help.
- Most parks do not have residential facilities. If you can supply your own camper or RV, will help tremendously.

CHANGING FISH POPULATIONS

Spokesperson: Mike Murphy, Department of Natural Resources, St. Petersburg

You don't have to wait long around Florida's fishing piers before you start hearing stories about how much better the fishing was in the good ol' days. But are there fewer fish today? Scientists say it depends on the species, but there is no doubt that the regulations imposed on fishing need to be enforced to prevent any decline in our fish populations. Here's what you can do to help:

- Learn the regulations and obey them.
- Report violations to the Florida Marine Patrol or the Game and Fresh Water Fish Commission.
- Always remember--good fisheries management begins with the person holding the rod.

XERISCAPING

Spokesperson: Bruce Adams, South Florida Water Management District, West Palm Beach

A new landscaping technique, xeriscaping, offers the homeowner a way to conserve water, reduce pollution, and increase the beauty of their yard. Basically, xeriscaping consists of:

- Using native vegetation--vegetation that frequently requires much less watering than does non-native vegetation.
- Using mulch. The application of mulch conserves water by reducing soil temperatures. It also decreases the growth of weeds so that herbicides aren't needed.

(To find out more about xeriscaping, contact your water management district office or your local County Extension Office.)

WATER CONSERVATION

Spokesperson: Dean Powell, South Florida Water Management District, West Palm Beach

Water is Florida's most precious natural resource and in many areas in Florida there simply isn't enough available to meet all of our needs. But with a little extra effort, we can help conserve this essential resource.

- Water your lawn only when it needs it.
- Reduce outdoor water consumption by using xeriscaping to landscape your yard.
- Install new toilets that use only 1.6 gallons of water per flush.
- Install new water conserving shower heads and repair leaky faucets and fixtures.
- Don't let the water run while you brush your teeth or shave.
- Reduce the water pressure in your home.



GUARD AGAINST
ULTRAVIOLET
RAYS!

SUNBURN PREVENTION

Spokesperson: Dr. Joseph Fiore, Ft. Myers

Perhaps the number one reason so many people come to Florida is the warm weather and almost constant sunshine. In fact, Florida averages 330 days of bright sunshine each year--sunshine that can be three times more intense than in northern states. That much intense sun can damage the skin. In fact, it's good to remember that you can't get a dark tan from sunlight without harming your skin. But there are some ways to reduce the chances of skin damage and possible skin cancer. For instance:

- Always use a sunblock lotion, preferably a number 15.
- Don't forget to use sunblock on small children. Studies have shown that one or two serious sunburns at a young age significantly increase the chance of skin cancer later in life.
- If you have to have a dark tan, check into using one of the many commercially available self-tanning creams.
- If you have a question about tanning or sun safety, be sure to ask your doctor.

UNDERSTANDING LANDFILLS

Spokesperson: Michael Berg, Central Disposal Sanitary Landfill, Ft. Lauderdale

The state-of-the-art sanitary landfill is always changing and getting better. Landfills are becoming environmentally safe--some are even turning the gases generated by decaying garbage into fuel to power generators that produce electricity. But even with all of these advances, it's still up to consumers to help reduce the demands placed on our landfills. To help:

- Recycle paper, cans, and glass. The goal in Florida is to use recycling to reduce the flow of garbage to our landfills by 30 percent by 1994.
- Take advantage of local "amnesty days" when you can dispose of bulky items like refrigerators by simply placing them out for curbside pickup.

LANDSCAPING SAVES ENERGY

Spokesperson: Jack Parker, Florida International University, Miami

Surprisingly, one of the best ways to conserve energy around your home is to plant vegetation in key locations. Studies have shown that air conditioning use can be reduced by nearly 60 percent by the proper placement of landscape plants. For instance:

- Plant trees so that their canopies extend to the edge of your roof to shade the sides of your home and the ground adjacent to it.
- Use native plants that will provide a full canopy throughout most of the year.
- Also, be sure to locate your air conditioning unit on the north side of the house where it won't be exposed to the heat of the afternoon sun.

MELALEUCA MENACE

Spokesperson: Daniel Thayer, South Florida Water Management District, West Palm Beach

Brought from Australia in the early 1900s in hopes that its ravenous thirst would drain the Everglades for farming, the melaleuca tree is one Florida visitor that has definitely worn out its welcome. The melaleuca crowds out native vegetation and consumes three to six times as much water as they do. It's also a fire hazard. Local governments are working to rid Florida of the nuisance tree, but they need help from residents. Here's what you can do to help:

- If you have a melaleuca tree on your property, please remove it.
- Check with your local water management district or County Extension Office to see if they can assist in removing the tree.
- If you burn the tree, use caution. Fumes from burning melaleuca can be dangerous to people with respiratory problems.
- Check to see if local lumber mills might want the tree to grind into mulch.
- Once the tree is removed, plant a native tree in its place.

PAPER RECYCLING

Spokesperson: Lynda Long, Waste Management of North America, Ft. Lauderdale

Although paper is the easiest product to recycle, not enough people have gotten into the habit of recycling their paper products. Participation in paper recycling is vitally important because paper currently accounts for

about 40 percent of the material that is dumped in our landfills. For every 118 pounds of paper that is recycled, one tree is saved. Here are some ways you can help:

- If your community doesn't have a paper recycling program, take the lead in establishing one.
- If a program exists, please take the time to separate your paper products for recycling.
- Always purchase recycled paper products.

ENVIRONMENTAL STUDENTS

Spokesperson: Jack Parker, Florida International University, Miami

Environmental awareness isn't something that just happens. It has to be learned and an innovative program being used in some Miami schools may be just what is needed to teach young people about the natural world. Called "Our Forest, Their Forest," the program allows elementary students to plant their own mini-forest on the school grounds. Not only do they learn first hand about their forest, they also compare it to the rain forests that are being destroyed in South America. To start a similar program in your school system:

- Discuss its feasibility with your school's principal.
- Check with the local Department of Forestry office or county extension office to see if an expert would be willing to help with the project.
- Ask local nurseries if they would be willing to donate seedlings.
- Start a fund-raising drive to finance planting activities.

MAGNIFICENT MANGROVES

Spokesperson: John Stevely, Florida Sea Grant College Program, Palmetto

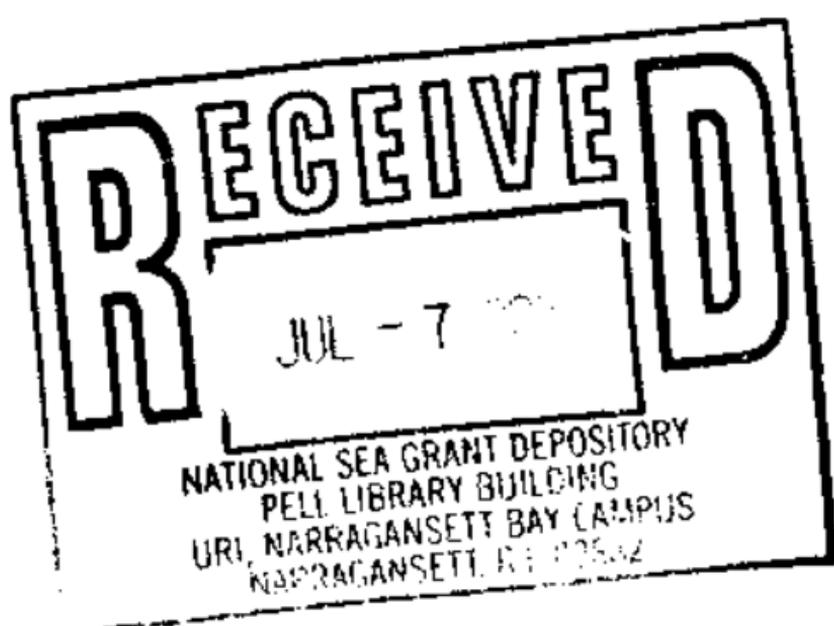
Mangroves not only provide food and shelter for some of our most important fish species, their extensive root systems help stabilize the shoreline and reduce inland flooding. They even help filter impurities out of the water. That's why it's important to do all we can to protect these important trees. Here's what you can do to help:

- Support local planning efforts that provide protection for mangroves.
- If you plan to prune mangroves on your property, make sure you know the regulations, otherwise you could be fined.
- Contact your local Department of Environmental Regulation of County Extension Office for the latest mangrove pruning regulations, as well as to find out more about what you can do to protect the magnificent mangroves in your community.

White Mangrove (Laguncularia racemosa)



Artwork courtesy of U.S. Fish & Wildlife Service



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