Hilda Diaz-Soltero, photo dated 1981



INTERVIEW WITH HILDA DIAZ-SOLTERO, Associate Chief for Natural Resources, U.S. Forest Service

By Daina Dravnieks Apple

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WiNR: Hilda, I'd like to begin with the background of your experiences as a person. You were born in Puerto Rico. You are the highest-ranking woman ever employed in the Forest Service. Before we get into the substance of your career, I'd like to talk a little bit about your personal life, your history, and your experiences growing up in Puerto Rico.

Diaz-Soltero: I am blessed with having been born into a wonderful family. My mother was a scientist. She had a Master's degree in biochemistry. My father is a lawyer, trained at Harvard. I was very blessed because my upbringing was outside some parts of our traditional cultural paradigm. When I was born in Puerto Rico in 1949, usually boys were educated and trained, and girls were raised to be homemakers and excellent wives. This distinction did not exist in my parents' minds. My parents valued education, public service and achievement. That is the environment in which I was raised.

I am a third generation of professionals dedicated to public service. Even the family members who worked in the private sector interrupted their careers for public service. My father did so three times in his life, first to be a judge, then Chancellor of the University of Puerto Rico at Rio Piedras, and for the third time,

When you're blessed with opportunity, There is a responsibility To give back to the community.

to be the president of the Puerto Rico Bar Association. My mother was Chancellor of the University of Puerto Rico at Humacao, and was also involved in many community activities. So, public service is a family tradition. When you're blessed with having the opportunity to be educated and to have many other fabulous opportunities in life, I believe that there is a responsibility and a commitment to give back to your community and to give back to others. Very early on, I learned important lessons from my father: that I must respect and protect nature, and that wild places and creatures ought to stay wild.

I'm trained as a scientist and as a manager. I earned degrees in geology and astronomy at Vassar College. In the honors program, you are required to do a thesis before you graduate. My thesis was on the San Lorenzo batholith, a geologic formation located in the southeast corner of Puerto Rico. I studied how lava had cooled off, its minerals, and the history of that batholith. I completed graduate studies on tropical ecology at the University of Puerto Rico. Later, I earned a Masters degree in wildlife, also from the University of Puerto Rico.

In between those degrees, in the early 1980s, I decided to change from a scientist to become a natural resources manager. I realized that I needed to better understand organizational management and how to effectively motivate and manage people for high performance. I had opportunities to study these topics at the Harvard Program for Senior Managers in Government, and the Penn State Program for Natural Resource Managers. Later, while at the Department of the Interior, I attended the U.S. Fish and Wildlife Service's Upper Level Management Training Program and the Department of the Interior's Advanced Manager Program. The latter is like the Senior Executive Service Candidate Program, but just for Interior.

WiNR: I'd also like to interject here that among the honors Hilda earned while she was at Vassar was Phi Beta Kappa and Valedictory of her Masters degree at the University of Puerto Rico. In addition to all your other accolades, you also won the highest academic recognition as well.

Diaz-Soltero: I see myself as a change agent. I have always been curious and have enjoyed taking on challenging situations. Also, I've always had jobs that

I've loved. I discovered very early in life that you should discover yourself, discover your passion, and follow it. When you do that and you can have jobs that you really love, then everything comes together - your knowledge, your interests, your commitment - and wonderful things follow. Magic happens. If I had one thing to tell other people, it is that they need to take the time to look within themselves and discover and nurture their passion. Life is too short to spend working on things that you do not care deeply about.

WiNR: You have tremendous focus. You avoid things that are distracting. Your heart leads you to focus, and then you bring your skills to focus.

Diaz-Soltero: And, if your heart is in what you're doing as a job, it's amazing! It's pure magic!

WiNR: Let's give people a picture of Puerto Rico. It's about 100 miles by 35 miles. It's an island of about 3.8 million inhabitants, most of who live around the perimeter of the island, because the interior is mountainous and very beautiful, but not very accessible. Please, I'd rather you spoke about Puerto Rico, since you know it better. Could you give us an overview of what the island looks like?

Diaz-Soltero: Taino Indians originally inhabited the Island. Christopher Columbus discovered it on his second trip in 1492. The island is volcanic, is on the border of the Caribbean plate, and is close to the second deepest point in the ocean. This area has the second highest earthquake activity in the United States.

Puerto Rico only has a thin band of flat land, not more than 10 or 15 miles wide, created by coral reefs. The island has gone back and forth under the ocean at various times in its geologic history. It has mountains up to 4,000 feet. There is heavy influence of the trade winds that blow over the Atlantic, and bring high humidity. There is a shadow effect from the mountains. Rainfall varies from 200 inches in the Caribbean National Forest to less than 15 inches in the southwest corner of the island. Twenty-three of the 27 vegetation formations that you find in Latin America are found in Puerto Rico. So, from a natural resources point of view, Puerto Rico is among the most geologically unique and biologically diverse places in Latin America.

WiNR: Will you explain the structure of government in Puerto Rico, and its relationship to the United States?

Diaz-Soltero: Puerto Rico is a Commonwealth. Federal legislation was enacted in 1952 that allows the country to elect its own governor. It has a bicameral legislature, with a Senate and a House of Representatives. It also has a judicial branch and an executive branch of government. The process is similar to the way the system operates in a state of the U.S.

Puerto Rico is subject to final decisions of the U.S. Congress, which has ultimate power over Puerto Rico. The island has operated in a very, very democratic manner since 1952. There is a profound public interest in politics and government, and 96 to 97% of Puerto Ricans vote in an election.

WiNR: That's a voting rate that is twice as much as the continental United States.

Diaz-Soltero: It's a peaceful society. It's very democratic. Its roots are Hispanic, African, and Taino Indian. Spanish is the main language. English is taught as a second language to children starting in the first grade.

WiNR: How many children do you have?

Diaz-Soltero: Three: a girl and two boys. I started my career in my late twenties, after having been with my children at home for seven years. I was very, very fortunate to be able to spend their early years with them. Then, my career started as my youngest one went to school. We had parallel paths, between his education and my career. I started working at the University of Puerto Rico Botanical Garden in landscaping, as the Superintendent of the garden.

WiNR: That's the location of the U.S. Forest Service International Institute of Tropical Forestry, in Puerto Rico.

Diaz-Soltero: Right! What a coincidence! While I was Superintendent, I wanted to create a garden of the native plants of Puerto Rico. A colleague said, "You should really do that only after you've studied the tropical ecology of this island." And that was the beginning of my graduate education in tropical ecology. I eventually earned thirty credits in that field.

After a couple of years, I began work with a relatively new agency, the Recreation Development Company. I was hired as a special assistant to the director. I had three tasks there; the first was to create a landscaping division. We were getting ready for the Pan American Games, so I developed a nursery that could produce 860,000 plants a month. I also organized 400 staff - all men. I was the only woman. We had 16 brigades that planted the existing 3,200

My first mentor saw in me a lot more than I had realized about myself.

parks and the new facilities that were being built for the games.

The second part of that job involved close work with my first mentor, Dr. Joe Barbosa, a philosopher and the Director of the Recreational Development Company, as well as the Administrator for the Parks and Recreation Administration. This man saw in me a lot more than what I had realized about myself at such a young age. We had zero-based budgeting, so Dr. Barbosa and I would sit down and we would dream about what we wanted that agency to be. He taught me about strategic thinking and linking what you want to accomplish in an agency with how you put your budget together. Then, the budget director and I would work through all the details. The third part of the job was my writing the first draft of Dr. Barbosa's testimony as agency Director to the Puerto Rico legislature. This helped me understand the linkages between the executive and the legislative branches of government, and how and why those two branches need to look for ways to work together.

WiNR: What did you do after working for the Recreation Development Company?

Diaz-Soltero: After the Pan American games, we worked on legislation, and the Legislature established the Puerto Rico Sports and Recreation Department as a Cabinet-level agency. Dr. Joe Barbosa was selected as the Department Secretary and he appointed me as his Deputy Secretary. That was the watershed moment at which I made the decision to go into management, and not focus my career solely as a scientist.

I was Deputy Secretary for just nine months. Then the Governor asked me to become the Secretary of Natural Resources for Puerto Rico. The DNR is an extraordinary agency. The legislative framework in Puerto Rico is very comprehensive, and the DNR is responsible for all natural resources. It is as if you took from our federal government the entire Department of the Interior, the Forest Service and the Natural Resources Conservation Service from Agriculture, the Corps of Engineers in the Department of the Army, and the National Marine Fisheries and the National Ocean Service from the Department of Commerce, and you put them under one umbrella. So, the DNR in Puerto Rico has responsibility for all the natural resources of the island: endangered species, coastal resources, mineral resources, water resources, plants, wildlife, fisheries, the whole gamut.

The Governor had three female Cabinet members... quite extraordinary.

I was 31 years old when I was selected to be a Cabinet member. I think I was the youngest Cabinet member in the history of the island. I was one of the women pioneers. There was just the Secretary of Treasury, the Secretary of Education, and myself. That was the first governor who had three females as Cabinet members - quite extraordinary. It was a tremendous opportunity. It was the first time that a natural resources professional had had the opportunity to serve as Secretary of the DNR. It was a fabulous, fabulous thing. That was in 1981.

WiNR: You were probably quite a bit ahead of the United States in terms of appreciation of competent women's abilities. We are moving toward it, but from what I know of Puerto Rico, women are amazingly

powerful and very much included, and have been for a long time. In a small society, you have to use more of the people, more of the resources. So, if you shine, they want you.

Diaz-Soltero: Some of my top priorities during those four years at the DNR included endangered species conservation, environmental education, and forestry. We had almost no forestry program when I began. With the help of the U.S. Forest Service (Max Peterson, who was then the Chief of the Forest Service; and Jack Alcock, who was Regional Forester in Atlanta - Region 8) we made enormous strides in forestry.

We were able to accomplish many things. For example, we expanded the system of Commonwealth forests. We established a program for reforestation and provided technical assistance to private landowners so they would plant trees and start using timber.

Hilda Diaz-Soltero (right), Secretary of Puerto Rico's Department of Natural Resources, at the signing of bill to purchase land and expand Puerto Rico's system of protected areas, in 1982. Carlos Romero-Barcelo, Governor of Puerto Rico, is signing the bill. At left is Carmen Ana Culpepper, Secretary of the Treasury, Puerto Rico.



We focused our efforts on the watersheds that needed the most restoration so that we would avoid excess sedimentation to our rivers. We were able to expand the network of recreational facilities so that people would get to know their forests and enjoy them. We established a forest supervisor position with a technical staff and field workers in each one of the forests of the system. We also expanded law enforcement.

WiNR: How many Commonwealth forests are there in Puerto Rico?

Diaz-Soltero: At that point there were 13.

WiNR: Did you protect more natural areas?

Diaz-Soltero: Yes. Additional lands were added to the network of protected areas. At the end of my tenure with the DNR, we had 4% of the land in Puerto Rico

protected. On a tiny island that's 100 miles by 35 miles, that's quite a lot.

During my tenure at the DNR, endangered species conservation was also a very high priority. We wrote legislation and regulations to protect endangered species in Puerto Rico and, as a result, the U.S. Fish and Wildlife Service delegated authority to the DNR for an endangered species conservation program. We established pro-active conservation policies for forests. fish, wildlife, water, soils and minerals. We established the first environmental education program. We created a Natural Heritage Program to identify biodiversity and protect lands of extraordinary ecological value. In only three years, we were able to increase the agency's budget from \$9 million to \$39 million. We worked intensely on the Puerto Rican Parrot, the Puerto Rican Plain Pigeon, the West Indian Manatee, endangered sea turtles, the Brown Pelican, and other species. Dr. Jose Vivaldi was the Endangered Species Coordinator for the DNR.

I changed my focus to the international arena.

With the change in administration, I then changed my focus to the international arena. In 1986, I started working for The Nature Conservancy as Director of their conservation programs in Ecuador, Paraguay, and the Caribbean.

About a year after that, the whole international group of The Nature Conservancy became a different entity called Conservation International Foundation. When that occurred, I was tapped to be their Director of Conservation. I was overseeing all the Latin American programs within Conservation International.

We were working in 11 countries from Mexico and the Caribbean to Paraguay, and established a scientific basis for conservation and strengthening institutional capacity for sustainable development, natural resource management, and protection. We had program directors for and from each specific country.

We had a three-pronged approach. We first pulled together the scientific knowledge and the people who had this knowledge, so that each country could identify the biodiversity that they had within their borders. That was quite a challenge at that time because some of the Latin American countries had very few technical people trained in botany, wildlife biology, or forestry. Also, this scientific information was often in botanical gardens or academic institutions in Europe or the U.S., but not necessarily in the Latin American country. We created what we called "conservation data centers" to collect this information.

Once we had identified the hot spots of biodiversity, the second part of the approach was to help the government design, what they call in Latin America, "national parks." They would be the equivalent of a national wildlife refuge, a national forest, or a national park in this country. We helped identify the boundaries of those land areas and then helped the government designate them as parks and protected them. We also helped governments establish the organizational structure and the technical expertise they needed to start managing those parks.

The third part of our effort was to identify an existing organization in the non-governmental sector, or help create one, with the purpose of sharing the fund-raising skills that we had. These organizations would learn how to raise funds for their organization within the U.S. or internationally to help sustain the protected areas designated by their country government.

WiNR: Did you encounter any resistance to the fact that you were female in what used to be a traditional male field?

Diaz-Soltero: I would call it more surprise than resistance. Puerto Rico was farther ahead in having women in very senior positions. When I started doing my work in Latin America, there were very, very few women working in senior positions in the private or in the public sector. Yes, there were some eyebrows raised when I walked in and people saw that I began to deal with the ministers, the presidents, and the conservation leaders in those countries. But it's amazing how quickly any gender issue seemed to disappear and I was quickly accepted. They saw that I was there with a positive attitude to try to share the knowledge we had in The Nature Conservancy or in Conservation International, and that I was there to try

to help. That was very exciting work on the international level. Being a Latin woman helped me connect very quickly and establish relationships.

So the initial surprise vanished very quickly. I never saw that as a problem. Obviously, you have certain ways of behaving as a woman in Latin countries, and I observed those customs as well. But there was no resistance.

In 1987, I began federal service directing the Caribbean Field Office.

After four years in the DNR, that agency had been strengthened by my presence. The Puerto Rico Conservation Foundation had been created as a result of my work in Conservation International. In Puerto Rico, there was a strong state presence in natural resources, and a strong non-governmental presence.

So, it was time for a new challenge. The U.S. Fish and Wildlife Service recruited me, and I began federal service in 1987 as Field Supervisor of their Caribbean Field Office. It was a small office, just five of us and an annual budget of about \$350,000. By the time I left three years later, we had programs in endangered species, Puerto Rican Parrot recovery, wetlands conservation and regulation, conservation education, contaminants, research, and Federal Aid grants to Puerto Rico and the Virgin Islands. The office had 24 professionals and a budget of several million dollars.

I was the Puerto Rican Parrot Coordinator. The Puerto Rican Parrot Project is part of the U.S. Fish and Wildlife Service because the parrot is an endangered species. The Service has a coordinator for each one of the flagship species. The effort for the Puerto Rican Parrot included the resource management side of the U.S. Fish and Wildlife Service and the Patuxent Research Center in Maryland, which was doing research for the recovery of the species.

WiNR: Is that parrot species located on the Caribbean National Forest?

Diaz-Soltero: Yes, in the Luquillo Mountains. Species recovery was a collaborative effort with the U.S. Forest Service, because the Caribbean National Forest is the only habitat that the wild flock of parrots uses now. The parrots used to be a lowland species, but as the island became more developed with agriculture, and human encroachment expanded, the birds flew up to the mountains. And now, we have them only in the Caribbean National Forest. Employees of the National Forest would observe the wild birds using blinds. Their efforts helped avoid parasitization of wild parrot nests by other birds. They

managed the habitat. Scientists from the Institute of Tropical Forestry, which is part of the research side of the Forest Service, were looking at research questions particularly related to habitat for the species.

Three major contributions to the Puerto Rican Parrot program by the Puerto Rican DNR were: first, the DNR established an interagency cooperative agreement where for the first time, the Commonwealth participated in the recovery of the species in cooperation with the U.S. Forest Service and the U.S. Fish and Wildlife Service; second, Dr. Jose Vivaldi learned about the use of special Nogel bird cages (larger cages where birds could perch higher and feel more secure) that were extremely important for successful breeding of captive parrots; and, third, the DNR funded the design, construction, and operation of a second aviary for the captive propagation of the Puerto Rican Parrots at the Rio Abajo Commonwealth Forest.

One of my most memorable experiences was working through Hurricane Hugo in 1989. It was a devastating hurricane for wildlife throughout the region. In Puerto Rico, we lost half of the wild flock of 47 parrots. We had censused these birds, and we knew them. Each one has a distinctive red mark over its beak. Some even had names.

WiNR: That's a very small total population from a viewpoint of genetic diversity.

Diaz-Soltero: Very small. We also had some captive birds in an aviary, where we were working on propagation. That was quite a challenge.

After the hurricane passed, we immediately started doing population surveys of the wild flock of parrots. We lost two of the wild breeding pairs and another bird from a third pair. But, within a year, there were six breeding pairs newly established; the one who lost its mate had re-mated. The wild population took off again. It was a major effort with very strong collaboration among all the Federal and Commonwealth agencies.

We were blessed by the fact that the Secretary of the Interior was in Puerto Rico right after the hurricane. When there is a disaster, the President designates one Cabinet member to head the initial team that goes with the Federal Emergency Management Agency (FEMA). Interior Secretary Manual Lujan was designated for Hurricane Hugo. I had been doing parrot surveys that morning, and I was covered with mud from head to toe. My only uniform was my U.S. Fish and Wildlife Service cap. I had taken the time to sit down, though, and estimate what it would really take to put the parrot program back in shape. When the Secretary came through, he asked all



Hilda's first day as Secretary of Puerto Rico's Department of Natural Resources, April 15, 1981. From right to left: Bob Pace, Endangered Species Biologist with the U.S. Fish and Wildlife Service Caribbean Field Office; Tito Chabert, wildlife expert, Department of Natural Resources; Dr. Jose Vivaldi, Director of Terrestrial Ecology Research, Department of Natural Resources; Hilda Diaz-Soltero surveying Luganas de Humacao, site of high value for fish, wildlife and wetlands, and the subject of a lawsuit against the DNR.

the Department of Interior agency personnel what kind of damages they had.

I got the memo to Secretary Lujan... and it resulted in the first use of FEMA emergency funds for the recovery of an endangered species.

When he came to me, I said, "I have a species that is on the brink of extinction. We have counted them, and we have lost half of the wild Puerto Rican Parrots."

He said, "Do you know what you need?" I replied, "Yes, sir. I need \$2.3 million." He was surprised. It had been less than 48 hours since the hurricane. He was surprised I had a number.

He asked me, "Is there a possibility that you could have the details of that in my office?"

I said, "Sure. By tomorrow morning, you'll have it." I called Atlanta and the U.S. Fish and Wildlife Service Assistant Regional Director sent a

memo signed on my behalf. My efforts resulted in the first time FEMA emergency funds were used for the recovery of an endangered species. We got \$2.3 million. Those funds were shared among the Forest Service, the U.S. Fish and Wildlife Service, and the DNR. It gave a huge infusion of resources, both human and economic, to the parrot recovery effort.

The parrots are doing a lot better now. It's amazing! They certainly have adapted to those incredible cyclical events of hurricanes in the tropics.

WiNR: I recall discussion when I was in Puerto Rico, about the viability of such constantly declining species; especially the effects of cyclical catastrophic events, and how viable these species are, and how long will they survive. These questions are not easy to answer. It's almost like we've tried to sustain these declining species just above extinction and manage each catastrophic event. With each hurricane, we get decimation. Yet so far, they are hanging on. In your professional opinion, what is the future viability of the parrot?

Diaz-Soltero: I have much hope that the parrot will be viable. When I was at the DNR with Dr. Jose Vivaldi, we were able to establish a second aviary in the Rio Abajo Forest at a much lower elevation in Puerto Rico. The parrots just love that kind of environment. That aviary has been very successful, even more successful in the reproduction of the parrots than the first aviary at the Caribbean National Forest.

WiNR: Was that their original, preferred habitat before encroachment?

Diaz-Soltero: That's right. The Caribbean National Forest, at a higher elevation, is a sub-optimal habitat with a cooler, wetter climate, whereas in the Rio Abajo Forest, it's warmer, and drier; and the parrots prefer those conditions. That has been very positive for the recovery of the species.

In the last three years, they have been doing some experiments with parrots in Santo Domingo, learning how to release Hispaniolan parrots into the wild. A release of 10 Puerto Rican Parrots occurred June 2000 in the Caribbean National Forest using the same

techniques researched by Dr. Jamie Collazo in Santo Domingo. In the future, there is the opportunity to start a second population of Puerto Rican parrots in the Rio Abajo Forest, and with that we can increase the population of the wild birds.

WiNR: Are the parrots less prone to parasitism and other diseases in a drier environment?

Diaz-Soltero: It still occurs.

WiNR: Is there sufficient habitat, once the increase in individual numbers, considering the island is now extremely densely populated with humans?

Diaz-Soltero: No, I don't think that right now there's enough protected habitat for the parrot, even when you take together the Commonwealth forests, the national wildlife refuges, and the federal forest in Puerto Rico. So, more habitat protection is for the future. We need to protect habitats that can sustain the parrots. There are lands that were originally used for agriculture, were abandoned, and secondary forests are coming up. I see a big opportunity to protect these areas for the parrot and other wildlife species, and also for water protection. The Puerto Rican Parrot is the symbol of Puerto Rico, so you have a huge commitment by the people of Puerto Rico to save the birds.

After three years in the Caribbean Field Office of the U.S. Fish and Wildlife Service, I moved to the Great Lakes Region, to the regional office of the

Service in Minneapolis, Minnesota. The region covers eight Midwest states. I was Deputy Assistant Regional Director for Ecological Services. I oversaw the regional staff that took care of endangered species, contaminants, wetlands protection and mapping, and wetland regulations.

After three years in that job, I moved laterally within the agency to be the Deputy Assistant Regional Director for Fisheries and Federal Aid. I was responsible for working on restoration of lake trout in the Great Lakes, the largest native fish restoration program in the nation. Our efforts resulted in fish with better survival opportunity after stocking. I was also responsible for collaborating with states and Native American tribes in fish restoration, and working on fish and stream restoration of three great rivers: the Ohio, Mississippi, and Missouri Rivers.

It was the National Marine Fisheries Service that gave me the opportunity to join the Senior Executive Service.

It was the National Marine Fisheries Service that gave me the opportunity to come into the Senior Executive Service. I joined that agency in 1994 as the Director for the Southwest Region, which covers California, the Pacific islands, and all the international programs along the Pacific Rim.

The NMFS deals with marine habitat issues, fisheries management, as well as endangered species issues in the part of the ocean under Federal jurisdiction, which is the 3- to 200-mile band of waters off our coasts. That job also included international work with Latin American countries. We share the tuna fishery in the Eastern Tropical Pacific, where the issue had been the demise of many dolphins. We were trying to lower the number of dolphins killed as the fishermen catch the large tuna. I also worked with other large fishing countries concerned with the distant deep-water fisheries in the Pacific.

After two and a half years there, I came back to Washington, D.C. in 1997 as Director of Protected Resources for NFMS with responsibility for supervising the national program for endangered species and marine mammals. We dealt with listing marine and anadromous fish species under the Endangered Species Act and their recovery programs. For example, we worked with all turtles, salmon, the right whale (of which there are fewer than 300), and the monk seal in the Hawaiian Islands. We were also responsible for protecting all marine mammals, such as dolphins and seals.

The first year on that job I focused on the reauthorization of the Endangered Species Act. I was the senior person in the agency working on this issue. In collaboration with the U.S. Fish and Wildlife

Service and members of Congress, we worked on the Kempthorne-Chafee Bill. Although that bill never got enacted, it was an opportunity to try to find a way to reauthorize the Endangered Species Act, looking to keep the strength of the Act and at the same time, modify some of its aspects.

I'm honored to be the first woman... the first Hispanic... the first one from outside the agency to be Associate Chief for Natural Resources.

I joined the Forest Service in July 1999. I am the Associate Chief for Natural Resources. I am honored that Chief Mike Dombeck has given me the opportunity to serve in this position. I feel a huge sense of responsibility. It's a fabulous opportunity to join the largest, and one of the finest, conservation organizations not just in the federal government, but in the world. This is an organization with proud traditions. It has incredibly valuable employees who have great and diverse knowledge. The agency has been able to face changing and challenging times and incorporate new information based on science. The Forest Service is in the process of modifying how it manages the landscape. We are looking at it holistically; not just from a biological point of view. We are examining our relationships with communities and with private landowners and creating opportunities for new, strong partnerships so that we can take an ecosystem approach to our conservation efforts.

My portfolio is the natural resources programs. Right now I'm focused on the National Forest System and the research programs. I work with the Deputy Chief for the National Forest System, Jim Furnish, on many issues. My portfolio also includes research, so I work with Dr. Robert Lewis and the research station directors as well.

I'm excited about the job. I'm honored to be the first woman, the first Hispanic and the first person to have been brought from outside the agency to occupy this position.

WiNR: You are the highest-ranking woman ever in the Forest Service. We are lucky to have you.

Diaz-Soltero: I'm honored to have the trust of the Chief and of the Forest Service. In terms of how I look at my job, this first year I'm committed to visiting all the regions and research stations. I want to see what's happening in the field and to fully understand the regions and the stations, programs, priorities, successes and challenges. I am conducting joint trips: a week for each region and research station, including visits with each regional forester and science director.

We tour the region, learning about the programs, and identifying the difficult issues that they're working on. We try to visit the field and see some of the projects on the ground. I have to tell you that I'm totally impressed by the enormity of the work that is being done, as well as the quality of the people and the challenges that they are facing. Forest Service employees have a great organization to be proud of, and we have a lot of work to do.

My typical day involves budget work, either the current budget or looking for additional resources in future budgets, to get the job done in the field. I'm involved in developing the Forest Service Recreation Strategy, which we're putting together with stakeholders so we can give a boost to that program. I also focus on the national leadership team of the agency and on our priority issues.

WiNR: Regional Foresters and Station Directors convene periodically with the Washington Office staff directors and upper level management.

Diaz-Soltero: That's right. We have teams responsible for tracking each issue. I get involved in research issues, and in National Forest System issues. I provide a link to the issues for the business side of the house. My colleague, Chief Operating Officer Phil Janik, works from a business point of view, and deals with budgets, human resources, strategic planning, and financial accountability. Phil and I work very closely together on policy analysis and legislative affairs. Whenever things happen on the natural resources side of the agency, they need to be linked to the business side.

I work with forest inventories, like the Forest Inventory and Assessment, or the Natural Resources Inventory System. I am very much involved in trying to integrate the science and the management sides of the Forest Service. It's very, very important that we conduct that integration, because our management decisions are scientifically based, and there is an everincreasing need for more scientific information. Additionally, I get involved in selecting, mentoring, and training the next generation of leaders. It's succession planning.

Another important issue I work on is the proposed Roadless Area Conservation Rule. I'm the senior person overseeing the interagency aspect of the this issue. This involves an extensive process in which we have established communication with the American public, to hear their desires as to how they want us to manage the inventoried areas of the National Forest System that do not have any roads in them. What management options are there? Should we allow more roads in them or not? What kinds of management activities should we allow in those

roadless areas? We've started the process that will result in a Final Environmental Impact Statement and a regulation. The public is providing comments at more than 400 public meetings across the country, over e-mail, and through regular mail and we are listening to their input. We will analyze all the public comments, and then write a final Environmental Impact Statement on how we're going to manage those areas for posterity. The release of the final EIS is planned for December 2000.

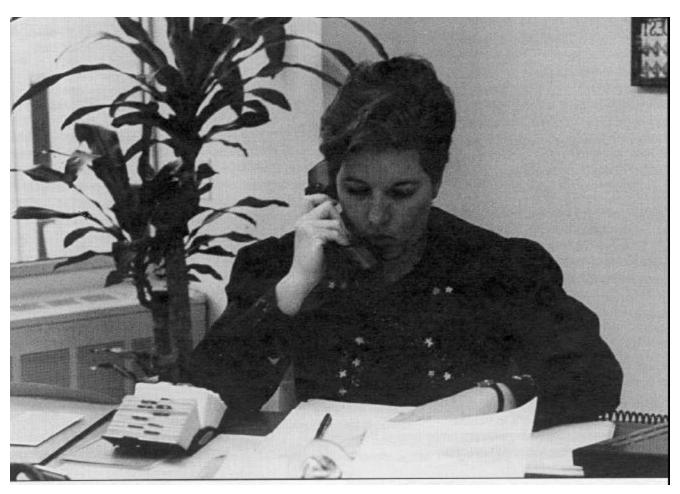
WiNR: This is an extremely sensitive and controversial undertaking, but not the only controversial one that you may have. The Forest Service is no stranger to competing values and competing wishes, when you manage the richest natural resources on the earth, with such great diversity. Everyone wants a piece of it, and as a democracy, we have to give everyone a chance to express that.

How do you envision coming to terms with the turmoil

that has resulted from changing public needs?

Diaz-Soltero: There has been a change in society's values. At the beginning of the century, more people would have thought of using the forest for either protecting important watersheds, or for timber. That's why the Forest Service is in the Department of Agriculture. Timber was seen as a commodity and as a crop. We are seeing a change in society's values in which people recognize other uses and values for their national forests. They want the forests for solitude, personal renewal and recreation; for supporting abundant fish and wildlife; to see naturalness in the landscape; and to provide choices for future generations. And yes, the forest is still for producing timber and clean water. These new, humandimensions-related values are competing with traditional uses, like timber harvest. The agency is right in the middle of that discussion, and is looking for ways to balance the different uses and values while incorporating sound scientific management practices.

Hilda Diaz-Soltero working at Conservation International overseeing land and biodiversity conservation programs in 11 Latin American countries. Photo dated 1987.



WiNR: When you have an entity and everyone wants a piece, how do you conduct ecosystem management, which concerns the whole entity, and make wise decisions?

Diaz-Soltero: That's the challenge. We have to try and define the ecological boundaries. What can the earth take, from an ecological point of view? Then, within those parameters or boundaries, how do we allow for the maximum social and economic use in a sustainable way so that future generations will have choices as to how to use those resources? This rather complex and difficult discussion is being held right now in the public arena.

I think we need to focus more on conservation education.

There are some programs that I think should be emphasized because of this change in social values. We need to be more into environmental and conservation education. We need to better understand the full gamut of human dimension issues and values on our national forests and grasslands. I think that our research groups have to do more social and economic research, so that we understand the people who are using the national forests, what they expect from the national forests, and then we need to decide how that can be provided for in a

sustainable way within the ecological boundaries of the

ecosystems. We need to do extensive and creative work on partnerships with other federal, state, and local community agencies; non-governmental organizations; Native American tribes; educational institutions; corporations; and other entities. We need to find better and more effective ways to communicate with the public, facilitating effective two-way, meaningful communication.

We are going to continue to do more work on ecosystem management and sustainability of all forest resources, including fish, wildlife, water quality, and so on. I think we're going to start seeing some of our federal lands become refugia. As some of the private lands are exploited intensively, there may be no other place for fish, wildlife, and other species to be maintained but on federal lands.

WiNR: Some people believe we already have such refugia. Then, the question becomes, how much can the federal agency responsible for management of the refugia really sustain the habitat needs of a species, when the habitat extends beyond the borders of the federal lands. It becomes a question of biology as well as politics.

Diaz-Soltero: Federal agencies have a higher burden of responsibility for these species within our lands. This is clear policy. But for these species to survive, we need to engage more often in collaboration with private landowners and state agencies. That's a huge experiment we're seeing in parts of the United States, like in the Northwest, the Midwest, and in the South.

I also think we will see additional program growth in recreation. More and more people are discovering the natural areas, and they are going to demand more types of recreation and more visitor days from our facilities.

I think we're going to see a big increase in focus on water conservation. Water will be the limiting factor for this society. That's very well known in the western region of the United States, but it's becoming more and more evident in the East as well. We need to manage our forests for increased water quality and quantity, and we need to increase our conservation education and outreach efforts to the public regarding water conservation.

I learned about environmental activism from Frank Wadsworth, and it was Frank who first challenged me to take on the task of being Secretary of Puerto Rico's Department of Natural Resources.

Mentors have been very, very important in my career. As I previously stated, my first mentor was Dr. Joe Barbosa, the Secretary of Sports and Recreation in Puerto Rico. My second mentor was Dr. Frank Wadsworth. Frank was the Director of the Institute of Tropical Forestry. He is a scientist, forester by training, and he directed the ITF for more than 50 years.

WiNR: He's an institution.

Diaz-Soltero: He certainly is! He's been in federal service for 63 years. Frank is the authority on tropical forestry.

WiNR: He wrote the book, literally.

Diaz-Soltero: I met Frank through the Puerto Rico Natural History Society. Frank was always an inspiration on how to work with citizen organizations, which would, in turn, get involved and challenge the different parts of government, so that we continuously evolve and improve. I learned that part of environmental activism with Frank in the Natural History Society. Frank was the first one who really helped make me aware of my strengths and abilities

that contributed to my success as the Secretary of Natural Resources. I still remember the day.

Dr. Jose Vivaldi, Dr. Frank Wadsworth, Roy Woodbury, and I were out in the field, looking for the endangered violet tree. There was going to be a change in the Secretary of the DNR, and I remember Frank just stopping in his tracks, turning around, and saying, "Hilda, you should be the next Secretary of the DNR. Would you do it?"

I was honored, but more than anything, surprised! I remember asking him, "Do you think I can do it?"

And Roy Woodbury, who had been my professor in most of my ecology courses at the University of Puerto Rico, then said, "Sure, you can! You would be a great Secretary of DNR."

"Well, if I'm given the opportunity, I'll do it!" I answered. And that was the first time anybody ever said anything like that to me. Sure enough, it happened about a year later.

Another important mentor was Roy Woodbury. Roy has an encyclopedic knowledge of ecology, botany, and taxonomy of plants in Puerto Rico. Roy and Dr. Jose Vivaldi both taught me a lot about the ecology of the island. I discovered all these wonderful things that were happening right in my backyard, in my little island.

Lastly, John Christian has also been a mentor. He is a colleague in the federal government. He has helped me understand what the federal system was about, how it worked, and how different it was from the way that I had operated in the DNR or in the international arena.

I've been blessed with people who have taken the time to share their knowledge with me. These people discussed with me who I was. They helped me hone my strengths, and helped me identify what things I still needed to learn to do a better job and to grow professionally. That has proven invaluable. I'm very committed to trying to do the same thing with others for the next generation of conservation leaders.

Yes, I see myself as a role model... and it's a huge responsibility.

WiNR: Do you see yourself as a role model? It sounds like you do, and that you have functioned as one.

Diaz-Soltero: Yes. I see myself as a role model for natural resource managers. I see myself as a role model for women. And I see myself as a role model for

Hispanics. If I fail, it's not just Hilda that fails. It's symbolic. That's a huge responsibility, but at the same

time, I feel so fortunate to help others in this profession.

WiNR: I think you have incredible energy and passion, which I recognized the first day I met you. I knew you would make a very inspiring and capable leader, coming with a lot of substantive background. In this busy, frenetic town, and with your high-level, responsible position, do you find time for a personal life, personal reflection? What are some of your hobbies? What do you do for fun? I know you enjoy your job. What else?

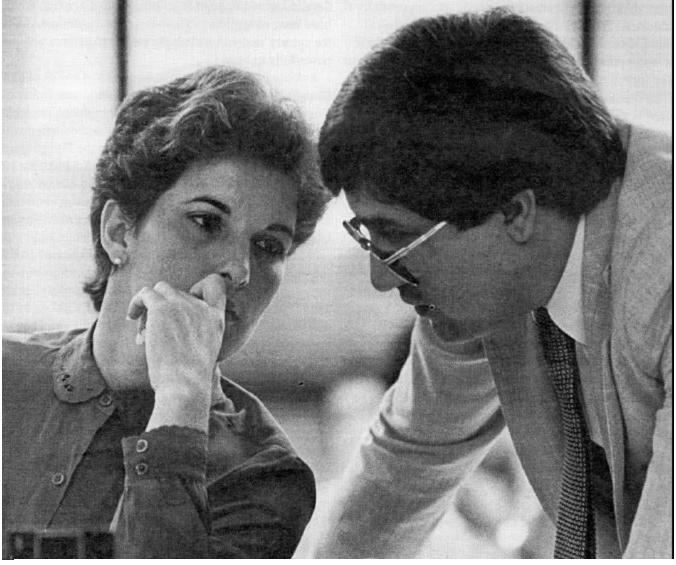
Diaz-Soltero: I love classical music. I love walks in nature. I love spending private time with family and close friends. Part of my problem is that I love too many things! I love to read. I read a lot about my profession because it's fun for me. I don't find it a chore to pick up a natural resources book and read it. It's fun and it's joyful and I am curious about what is being written on this topic. I feel very, very fortunate to have the opportunity to serve in a position to which I am deeply committed on a very personal level; where I feel that I can be making a difference; and be so much alive with what I'm about. It's a wonderful thing.

Management of natural resources evolves as our scientific knowledge base changes.

WiNR: What future do you see, based on your insight and experience?

Diaz-Soltero: We have a continual learning experience in natural resources. The scientific knowledge we had to manage natural resources in the 1920s was not the scientific knowledge we had in the 1950s or in the 1980s, and it's not the knowledge we have in 2000. Part of the change and the evolution in the management of natural resources comes because of the change in the knowledge base that we are using to make decisions.

We took a species approach for many years. Only in the last decade has there been a recognition that you have to take a systems approach, and start looking at the whole ecosystem. We have to face the reality that we cannot just manage the pieces of land that are under the management responsibility of one particular agency. If you're a state DNR, it takes more than managing your state forests; you have to manage the whole ecosystem. Or, if you're a federal Forest Service, it takes more than managing your National Forest System. You have to manage the whole ecosystem.



Hilda Diaz-Soltero, Secretary of the Department of Natural Resources, Puerto Rico, with attorney Luis Davila-Colon discussing the violations of environmental laws in Vieques, Puerto Rico. Photo dated 1983.

We have started to recognize how much more complex the issues are. Before we could focus on just forestry. Now it's forestry, wildlife biology, hydrology, soils, global change, demographics, social value changes, and major economic transformations in the United States, among others. All of those things are affecting us. You have to have interdisciplinary teams that include more than just the physical sciences or the natural sciences; it takes the social sciences as well. We need to manage human dimensions in concert with the natural ecosystems. Ecosystem management must include the people and their values.

Another challenge is that we are now in a global society. So, what happens with one particular resource is more than what happens in just one region or in one country. You have international implications and this must be taken into account.

All of those factors place all of the natural resource agencies into a continuum of evolution. It would be naive to think that we can go back. We cannot go back to managing the way we did at any time in the past.

I have observed a convergence among the approaches different federal agencies apply to their work; they are all focussing on an ecosystem approach.

You were curious as to whether I found a difference in working for the Forest Service and some of the other agencies in my professional past. This dovetails with some of what I just said earlier. Initially, the U.S. Fish and Wildlife Service was created to deal with hunters and recreational anglers. The National Marine Fisheries Service was created to deal with commercial fishermen. And, the Forest

Service was created to deal with timber production and protection of the watersheds for water production. So initially, these agencies may have started at quite different points. However, because of the evolution of scientific knowledge, and the recognition that we have to manage whole ecosystems, and the genuine understanding that everything is interrelated, they are converging. I find that the kind of intellectual knowledge and the kind of approach to work that I used as a U. S. Fish and Wildlife Service employee seven to twelve years ago, as a National Marine Fisheries Service employee one to five years ago, and now as a Forest Service employee, are incredibly similar. Each agency still has their own mandate, but each one is trying to take a greater ecosystems and partnerships approach to what they do.

WiNR: Will you speculate, then, about the logic and feasibility of unifying natural resource agencies into a Federal Department of Natural Resources?

Diaz-Soltero: One can see that there would naturally be a lively discussion about putting diverse agencies under one umbrella agency.

WiNR: How much progress do you think has been made in terms of increasing diversity (gender, racial, other kinds) in natural resource management? What will be the impact of an increase in the number of women working in these fields?

Diaz-Soltero: There has been a significant increase of women in natural resource management. Today, usually half of the universities classes are women, so this is a good sign for the future. We have not been as successful in increasing the number of people from different racial groups: Hispanics, African Americans, Asian-Pacific Islanders and others. All agencies and organizations should continue to increase their efforts in attracting diversity of all kinds to their workforce. This will give the organizations strength because they will get a diversity of ideas and approaches on how to address natural resource issues. These new, diverse people will be able to communicate natural resource programs to an ever wider group of communities of place or communities of interests. America is changing, and by increasing diversity in the workforce, organizations will be able to communicate and recruit new citizens that care about natural resources conservation.

WiNR: I think you are quite an asset to the Forest Service, providing high-level leadership diversity. We have been struggling to become more diverse throughout the agency, and you are bringing that perspective very powerfully to bear.

Diaz-Soltero: I think that agencies will benefit from being open and hiring people from other places, because each one of us has a unique set of tools and experiences. When I am faced with a problem here in the Forest Service, I can think back and say, "Is there something I did in the DNR that can help me here? Is there something I learned in the non-governmental sector? Is there something I learned in the U.S. Fish and Wildlife Service or NMFS?"

I also think that all agencies would be enriched if they were more open to hiring people from different walks of life than just the natural resources arena. There are many, many different career paths that could apply to the successful management of natural resources. This enriches the discussion around the table. Hopefully, when you bring other perspectives to bear, you can arrive at 'best' decisions and best approaches to problem solving. It's worked for me.

My greatest hope is that I can contribute my expertise to the Forest Service and help leverage the agency so it will be a world-class agency for the conservation of natural resources and for the American people well into the future. It's wonderful to work with the people of the Forest Service. I'm really honored to have the opportunity to join the Forest Service.

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She is active in the Society of American Foresters and is Chair of the National Capital Chapter. She is a member of Sigma Xi Scientific Research Society and was elected President of Phi Beta Kappa Northern California Association, and National Secretary. She is a graduate of the University of California at Berkeley, where she earned a B.Sc. in the Political Economy of Natural Resources and an M.A. in Geography, and is currently in the Environmental Science and Public Policy Ph.D. program at George Mason University.