## GOLF AND THE ENVIRONMENT:

## A Chat with Christine Kane, CEO of Audubon International



o the general public, a widespread misconception is that golf courses are bad for the environment. As most who work in the industry know, in the vast majority of cases, golf courses are, actually beneficial for the environment, in addition to providing green space in an otherwise shrinking green footprint.

Over the past few decades, a focus on the

environment has become essential to strategic business planning in many industries, including golf. For most golf course superintendents, being sensitive to the environment has always been a part of their maintenance programs.

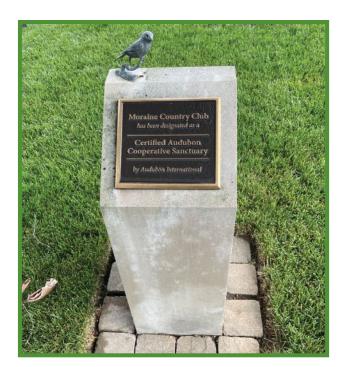
To formalize environmentally favorable practices that golf courses and their maintenance teams could implement, a collaboration began in 1991 between the United States Golf Association (USGA) and Audubon International, and the Audubon Cooperative Sanctuary Program for Golf (ACSP) was established.

Recently, we spoke with Christine Kane, CEO of Audubon International, to discuss this long-standing relationship, how the program works and more about golf and the environment.

## **Meet Christine Kane**

Christine Kane earned her Bachelor of Science degree in Forestry from the State University of New York College of Environmental Science. Additionally, Christine gained a Master of Science in Nonprofit Management and Philanthropy.

"The outdoors and nature have always been very important to me. I grew up in a very rural area and was lucky to have lots of fields, woods, creeks and lakes to play in. I was outside all the time, so early on I knew that the natural world was where I wanted to focus my career."







Before joining Audubon International, Christine Kane worked in various areas in the environmental field, such as environmental education, land conservation, trail building and non-point source pollution.

"To widen my skills in fundraising I worked in secondary education, religion and social service settings. But then I brought all those skills back to the environment, which is my first love."

Christine Kane joined Audubon International in 2016 as its Executive Director. In 2018 she moved into the role of Chief Executive Officer. We discussed the relationship between the golf industry and environmental concerns.

"Audubon International's mission is to create sustainable environments where people live, work and play. One overlooked area we all interact with daily is the niche where the natural and built environments come together, such as businesses that own property and/or manage property. We don't often think about that as nature, but it is. And during COVID, we all realized the positive impact that nearby green spaces and natural areas had on our physical and mental health. So, to accomplish our mission, we work with businesses such as those in the golf industry to manage their properties using sustainable methods.

We focus primarily on public and private recreation and hospitality properties, including golf courses, country clubs and resort properties with golf courses. We function as an advisor, or a "disinterested third party," in that, we have no ownership interests or profit motive behind what we do because we are a nonprofit organization and can provide expert advice and technical assistance. We work with these businesses to help them make their

management environmentally aware and their property management as sustainable as possible. And we also offer environmental certifications, so if a property's business owners or managers want to receive validation or recognition for their sustainability efforts, they can work towards achieving certification with us. These certifications must be earned through a multi-step process – they cannot be purchased."

Next, Christine Kane shared an overview of the ACSP for Golf Program.

"We actually have two certifications specifically geared towards golf operations. The Audubon Cooperative Sanctuary Program (ACSP) for Golf is for existing/operating golf courses, and the Signature Sanctuary Certification is for new golf course construction or significant renovations.

The largest segment, by number of members, is the ACSP for Golf. There are six steps to gain certification. Before anything else, you must do the Site Assessment and Environmental Plan or SAEP. This establishes a property's baseline, since you must understand how and where you can improve."

Christine explained that once a golf course had that completed and approved, they could complete the following five sections of the program in any order:

- Chemical use, Reduction and Safety
- Water Conservation
- Water Quality
- Wildlife Habitat and Management
- Outreach and Education



"The process requires a wide variety of materials to be submitted for review, including wildlife inventories, case studies and water testing results. Once all the sections have been approved, the final step to reach certification is a site visit by an Audubon International staff member to verify and document the information and practices in place."



From there, I asked Christine Kane to touch on each of the following areas as it relates to golf and her organization's values:

Water: The water-based sections of the certification process are where most in the golf industry start their journey. Our certifications touch on both sides of the water discussion: water conservation (quantity) and water quality. We look at water sources, water management and the type of water used (reclaimed water, well water, municipal water, stored water). Here we look for information about mowing heights, scouting reports, input application rates, etc. We also have various water testing regimens based on seasonality, sources and types of inputs. Many of our golf course members have water testing data showing the water is cleaner when it leaves their property than when it enters it.

**Chemical Use Reduction and Safety:** For this section, we are looking at the types of inputs used, but also how they're stored, handled and applied.

Wildlife Habitat and Management: Many times, when golf courses were originally built, they were outside of metropolitan or urban areas. Over the years, many have been surrounded by urban growth and now provide the last green space and plant and animal habitats within these urban areas. We have member courses that provide high-quality habitats for many plants and animals, including endangered species



and species of particular concern.

There are a lot of different habitats available on golf courses, from water bodies to out-of-play areas to woodlands and more. This is where wildlife inventories come into play, and they can help to identify trends and identify opportunities to implement alternative management strategies that can increase the quality and quantity of wildlife habitats without adversely impacting the game.

Audubon International also offers golf course's an opportunity to help create much-needed, new areas of monarch butterfly habitat across North America through its Monarchs in the Rough program. Over the past 20 years, we've seen a 90 percent decrease in the population of monarch butterflies. They only lay their eggs on milkweed, and their caterpillars only eat milkweed, but milkweed habitat has decreased significantly due to several factors, including land use changes. So, we've harnessed the power of sustainable land management at golf courses to plant regionally appropriate milkweed and pollinator-supporting plant mixes in out-of-play areas on golf courses. We have well over 800 courses enrolled in this program, with almost 1,300 acres of new habitat created already. If you'd like to participate, more information is available at www.Monarchsintherough.org



Outreach and Education: The Outreach and Education component sets our program apart from many other types of certifications. Talking about and demonstrating sustainable property management within communities is critical to moving us all further along the sustainability continuum.

Communities can be actual golfers on a property or the people who live in the area around the golf course. It can also be more on a geographic or a natural approach, such as a particular watershed area or mountain valley. The goal is to get the word out about your environmental property management and to encourage others to realize that they can do it too, whether in a business or a residential situation. Examples include newsletters, educational displays and participation in area organizations or groups such as watershed management associations or native plant societies. Each year Audubon International sponsors BioBlitz, a free, fun





way to bring together members, families and community groups to count as many species of flora and fauna as possible in one day on your course. It demonstrates the wide range of biodiversity on your course and can build goodwill among your neighbors and bring you more golfers.

To conclude, I asked Christine Kane if she could share a specific case study that comes to mind of a course that Audubon International has worked closely with in the past and helped them become more environmentally friendly.

"I can think of many exciting things our member courses have done, from everyday practices to out-of-the-box thinking to new, experimental opportunities.

Our Director of Environmental Programs for Golf, Frank LaVardera, recently mentioned a newer ACSP for Golf certified partner in South Dakota, Elmwood Golf Course in Sioux Falls.





It's a municipal course, and their Assistant Superintendent, Steve Vanderbeek, handles the course's environmental sustainability efforts. He and his team landscape with native plants, remove invasive plants on the course and keep managed turf to a minimum. They've implemented several water quality and water conservation projects, such as monitoring the efficiency of their irrigation system and enforcing no-spray zones around water bodies.

Sustainability is a journey, and we are constantly helping our partners find ways to keep improving. We understand the realities of running a golf course regarding budgets, personnel, seasonality, etc. Everybody wants to do their best, but no one has an unlimited budget or staff. No matter where you are at your course, we can help you become more sustainable with ideas, project suggestions and certifications."