GFWC

Clubwoman Magazine

Ideas, Information, Insight, and Inspiration

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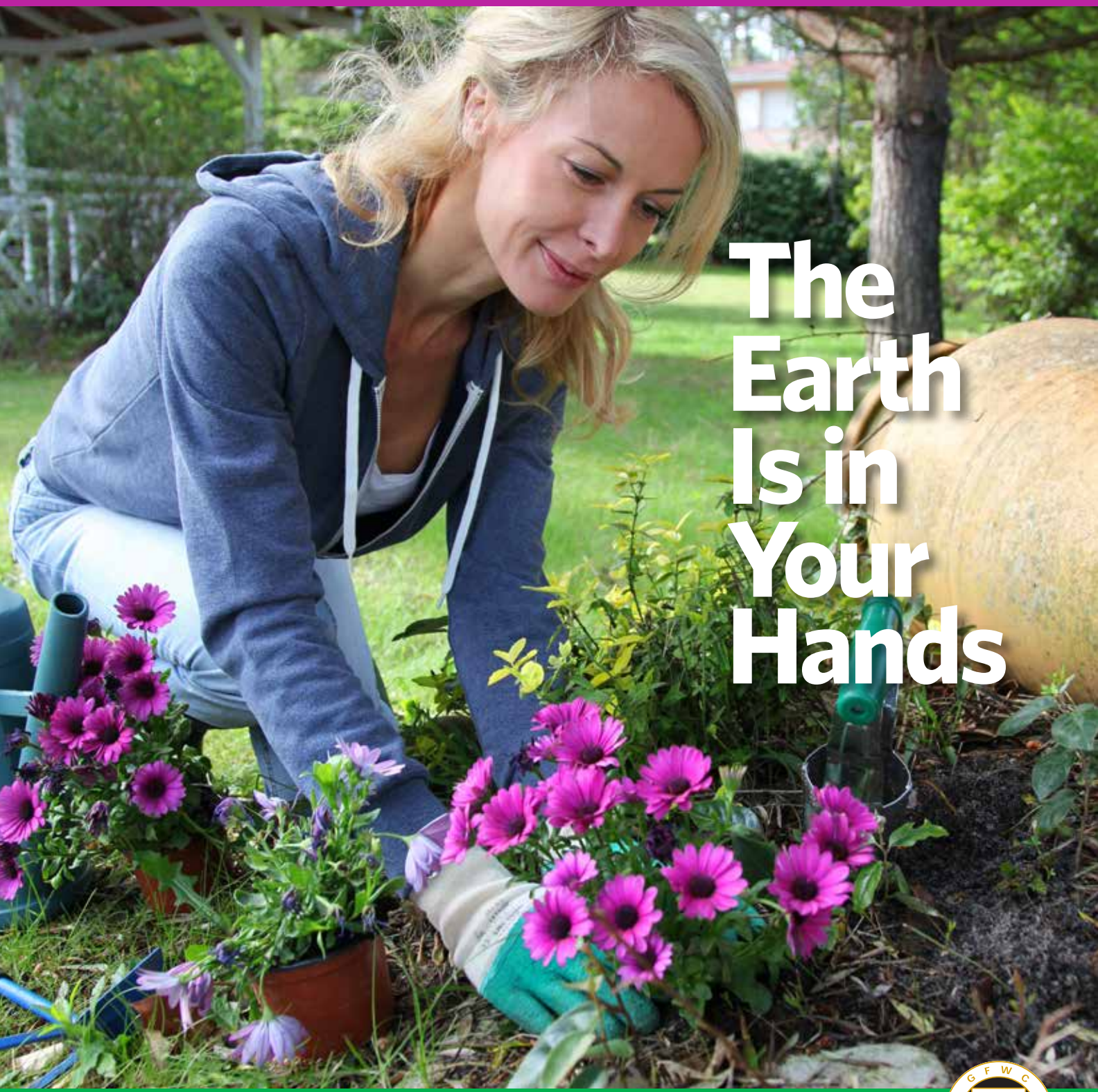

The Earth Is in Your Hands

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GENERAL FEDERATION *of* WOMEN'S CLUBS

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From the International President

Dear Fellow Members,

The arrival of this electronic *GFWC Clubwoman Magazine,* the first of its kind, marks another step into the future for the Federation. I hope you will welcome this change for the opportunity it provides to expand the reach of the magazine and to offer exciting new content and contributors within its pages. As GFWC's longest-standing communication channel, the magazine is a cherished part of our heritage. With continued refinement to keep it relevant and engaging, our aim is to secure its viability well into the future.

As we have learned over the past fifteen months, progress is impossible without change. Whether we relish or dread it is irrelevant. Although the process itself can be challenging, we must understand that embracing change is not only necessary but can yield astonishing results.

GFWC clubs prove that point every day. With Award Entries in hand and State Conventions coming to a close, I want you to know how astounded I am by your many achievements during the 2020-2021 club year. I'm enormously proud of your perseverance and determination, and I'm delighted that you have continued to build on your successes and have created strong, resilient bonds with each other and in your communities.

Over the years, I have learned that club work affords unlimited opportunities for personal growth and enrichment. In many ways, it provides a path for life-long learning. Working together to lift others—with efforts that also enlarge and make the most of our talents and skills—is a gift.

I hope you will take a renewed sense of purpose and enthusiasm into summer, and that you will follow the call of this magazine to plan projects that encourage outdoor learning, reduce plastic waste, use houseplants to enrich homes (plus schools and shelters!), provide healthy habitats for insect pollinators, and have some fun with nature's bounty.

The earth truly is in our hands. Learn about it, care for it, protect it, and preserve it.

Yours in ***Living the Volunteer Spirit!***

Marian Simmons-St.Clair

MARIAN ST.CLAIR
GFWC International President

From the Director of Junior Clubs

Dear Federation Sisters,

Summer in the Higbee household means strawberry picking with the kids, lazy days at the lake, packing for Scout camps, and visits to National Parks. I am always excited for the summer solstice–June 21–my birthday. It is the longest day of the year, and it is when the strawberries are ripe and the peonies are blooming in Wisconsin.

Our family typically camps every summer, and this year is no different. We are planning a few camping trips including heading to one of our favorite Michigan State Parks–Porcupine Mountains. It gives us a chance to connect with nature and our environment. I am thrilled that, as part of the Juniors' Special Program: Advocates for Children we are encouraging our members to advocate for getting children outdoors. Educate children about the importance of practicing Leave-No-Trace Principles while hiking and camping. A trip outdoors can be so reenergizing for both adults and children alike.

Our members have a long history of supporting National Parks. Did you know that the National Park Foundation offers a free pass to every fourth-grader for an entire year? Did you know that every park offers a Junior Ranger program for the young or young at heart? Read more about these amazing opportunities in the Club Manual.

Last summer, during the pandemic's black cloud, there was a silver lining: the joy of digging and planting. Who would have guessed that more people than ever would plant gardens for the first time? I have had a love for gardening for as long as I can remember. My kids caught the bug last summer, and our family planted an orchard in our backyard for the first time. Our Environment Community Service Program offers many ideas for ways your club can get outdoors and become good stewards of the earth.

It has been an honor to attend state conventions both remotely and in-person. I am so looking forward to seeing you all in Atlanta in August! Thank you for all that you are doing in your communities and your states. Hearing about all of the awards to be presented is impressive. Seeing friends and making new ones makes each meeting fun.

As Juliette Gordon Low once said, "Ours is a circle of friendships united by ideals."Wishing you Peace, Love, & Friendship,

Kristina Higbee

KRISTINA HIGBEE
Director of Junior Clubs

Reaching Rural Children WITH WHAT COMES Naturally

BY ARLENE MARTURANO

Envision an outdoor classroom where students dance with butterflies, measure wind direction with kites, compare their growth height with saplings, plant a caterpillar garden, count birds visiting feeders, and make plaster casts of animal tracks.

A three-year professional development program at an early childhood center (Pre-K-2) in a rural southern school district was undertaken to develop outdoor spaces for nature-based science instruction and concomitantly train 15 teachers to utilize the living laboratory with 230 youngsters ages four to eight. The outdoor setting enhances learning by providing direct sensory experiences and firsthand observations (Hammerman, et.al. 2001), sensori-motor experiences necessary for conceptual development (Piaget, 1952), a sense of freedom to exercise autonomy (Rivkin, 1999), an opportunity to connect to one's larger ecological family (Salmon, 2000), and a place to practice grassroots conservation (Tallamy, 2019).

The rural landscape was a blend of woodlands, farmlands, abandoned fields, freshwater streams and lakes, roadside wildflowers, a haven for an abundant variety of plant and animal life, and an untapped treasure trove of free ongoing biotic and abiotic resources for teaching.

In contrast man-built schoolyards in rural and urban America often replace native biodiversity with pavement. Except for foundation planting at the front of the one-story red brick building, the school landscape looked like the high school football field it had been prior to construction of the center, a monoculture of turf with no trees. Wildlife ecologist Doug Tallamy (2007, 2019) posits that citizens are the last and best hope in bringing back biodiversity to America's landscapes. The present project captured children's inborn inclination for adventure and curiosity about nature as pivotal points for preserving biodiversity. Early childhood outdoor education is the gateway to species and community conservation in the long term.

In three years teachers, students, staff and community collaborators overturned turf to invite nature back with four ecosystems for real-time observations of the interplay of organisms and their environment. Science class would be held in the surround sound of wind and critter

music and in natural sunlight with sky canopy. Prior to this professional development only recess and fire drills had been outdoor events.

Ecosystem Planning

In January of the PD's first year a committee of teachers representing each grade level trekked the terrain with me to survey the schoolyard, select sites, brainstorm ideas, develop a budget, and coalesce paper plans and sketches for four distinctly different outdoor spaces. This committee managed the muscles and minds recruited from the school district and the community to partner on the project.

Pre-kindergarten teachers proposed a rain rock garden in a sloping surface drainage area near their playground. Before a rain garden could be set in stone, a county stormwater consultant advised us on design options to prevent water or soil from flowing into the school parking lot. Four year olds conducted perc tests to determine if surface water "stays on the top or disappears into the ground." A soil sample of schoolyard property was taken to the county extension service to test for pH and basic NPK nutrient content, data needed for plantings on campus.

Additionally, Pre-K wanted to build a Carolina Fence Garden, a split-rail fence encircled with state cultural and natural history symbols. The state flower, the evergreen yellow jessamine vine, *Gelsemium sempervirens,* twines along the fence. The state wildflower, goldenrod, *Solidago altissima,* and state grass, Indian grass, *Sorgastrum nutans,* grows among other native flora around a block of blue granite, the state rock. A nesting box for the Carolina wren, the state bird, is mounted on the fence. The use of indigenous plants guarantees the garden's longevity (Moore and Wong 1997) and brings an influx of native animal species and noticeable species richness and interaction diversity (Tallamy 2007, 2019).

Kindergarten teachers imagined a butterfly garden of host and nectar plants in a sunny spot visible to the entire student body on their way to the playground and the bus-loading zone. Large stepping-stones across the garden would permit children to flutter across a path while surrounded by flowers and butterflies.

First and second grade teachers planned food gardens. Students would sow seeds for fruits and vegetables in raised beds in an enclosed courtyard accessible to water and a proposed compost bin. They planned to prepare and eat the produce at school. Cafeteria food prep waste would initiate composting. The nutrient rich compost would be incorporated into the raised beds to feed the soil food web (Lowenfels and Lewis, 2010).

Since students lived in an agricultural setting, one might assume home gardens were commonplace. Such was not the case. The small town (pop. 983) with one grocery store on the verge of closing and a large population living below the poverty line qualified as a food desert (Liese et.al. 2014). However, students could export seeds, seedlings, and composting from the school garden to begin home food gardens.

The outdoor classroom needed a central workstation for giving directions, distributing materials, introducing or culminating lessons plus a storage shed for tools and equipment (Broda, 2011). Picnic

tables were selected as the meeting/seating arrangement.

Rounding Up Human and Natural Resources

One of my responsibilities was to harness the talents of human resources to assist with design, materials, and labor. Many teachers in rural school districts drive long distances to and from work and do not know the local community except for the children they teach. Likewise, parents must commute outside the rural setting to larger cities for work and are unable to volunteer during the school day.

I was a long-distance commuter too but introduced myself to the community by discussing the outdoor classroom project with new business owners who were revitalizing a faded Main Street, calling local churches and garden clubs for volunteers, contacting landscape supply and lumber companies, visiting the sole backwoods nursery, and enlisting natural resource professional networks already in place–county extension agent, master gardeners, soil and water conservation district manager, regional stormwater coordinator, and state geologic survey geologist. Each community resource contributed their specialty to the project and would remain in place for assistance when my tenure expired.

Construction of Outdoor Classrooms

Each grade level drafted a timeline. Supply and plant lists were made and orders were placed for spring planting. Master gardeners removed turf for three of the gardens. Second graders assembled raised bed kits for the food plots placing alternating layers of cardboard and wet newspaper to smother existing turf and weeds before hauling buckets of topsoil across campus to fill the beds. Two truckloads of topsoil were delivered for the entire schoolyard venture. Lumber was shipped to the high school where the Future Farmers of America (FFA) class built picnic tables. I transported the blue granite eighty miles from the state geologic survey to the Carolina Fence Garden.

Plants for rain, fence, and butterfly gardens were ordered and delivered from a nursery sixty miles away. The county extension agent, trained in landscape architecture, put the final touches on the butterfly garden design plan. Teachers and master gardeners supervised student planting recognizing that planting activities affected childhood development including large-muscle control, fine-motor coordination, sensory stimulation, and cooperative work. First and second grade students

planted transplants the first year and located a site for the new compost bin. The highly affective outdoor setting encouraged kinship and caring for one's extended family of flora and fauna as students asked to water, weed, and tend to their gardens.

In May, after four months of garden installation, we needed a summer maintenance plan. The custodian crew and summer school teachers assumed watering and weeding responsibilities. They were rewarded with fresh flowers and produce from the summer gardens.

Curriculum Cast Arrives on the Scene

By late August plants in all four installations had taken off; moreover, animals had arrived (Tallamy, 2007). Ecosystem interactions were in full swing. An insect collection converged on the melons, peppers, cucumbers, and tomatoes, and birds had discovered the insect café in the courtyard. Food web and predator-prey concepts were happening before the children's eyes. Sequencing of food chains and subsequent charting of food webs was exciting with live specimens.

In the butterfly garden cloudless sulphurs were laying eggs on leaves of the host candlestick plant, *Cassia alata,* and their larvae, in various instars, were devouring the large pinnately compound leaves. Kindergarteners could capture life span, life cycle, food chain, food web, and metamorphosis concepts by close viewing with hand lenses and drawing the live models for handmade cycle books, food chain games and food web diagrams.

At the rain garden consumers and producers were on stage as frogs, toads, birds, and dragonflies were keeping the mosquito population in check. Six-foot tall clumps of swamp sunflowers were in bloom. The seed heads provide a feast for winter wildlife. Some seeds were harvested in a classroom seed packaging company and shared with families.

Red pineapple sage flowers around the Carolina Fence Garden brought bumblebees for children to observe how they lap nectar using their proboscis. How the form of flowers and insect mouthparts complement each other during nectaring and pollinating was visible in all the gardens. Children observed bumblebee pollen baskets on the hind legs overflowing with pollen.

Implementation of Instruction in Ecosystems

Having created four ecosystems populated with nature-based science content, in the second school year my weekly visitation had two goals: moving science instruction outdoors for nature-based inquiry lessons and modeling inquiry science lessons indoors and outdoors with students and teachers.

Teacher workshops introduced three themes related to the new ecosystems. *Organic Practices in Ecosystems* offered ways to distinguish insect pests from beneficial or benign ones with weekly pest patrols along with natural ways to control pests using barriers, traps, trap crops, and biological controls like predation and parasitism. *Think Like a Butterfly* demonstrated how to recognize and encourage butterfly behaviors like basking, egg laying, puddling, drumming, and nectaring as butterflies live their life cycle in the garden. Teachers traipsed outside for *Can Do Composting* where piles of organic matter awaited a hands-on layering of greens (nitrogen source) and browns (carbon source) for micro- and macro-organisms ready

to decompose, make and bake hot compost. The compost bin was a site all students could easily observe, sketch and photograph changes occurring to organic matter, and measure and graph decomposition with a compost thermometer. Children incorporated this soil amendment into each garden.

The county soil and water conservation district manager had a wealth of teacher resources and was eager to connect the rain garden to EnviroScape®, a watershed model demonstrating how pollution affects the school's Lake Marion watershed system. Teachers could borrow the model for their classes.

The campus needed trees for shade, habitat, and to serve as teachers. The Native American notion that trees are teachers was introduced. 'Teacher' did not necessarily refer to a human since native people viewed the entire world as a teacher including streams, birds, otters, rocks, clouds, butterflies and trees (Jennings 2000). A December Arbor Day celebration brought the school community together to plant two fast growing native shade trees, a tulip poplar, *Liriodendron tulipifera,* donated by the conservation district commissioner and a red maple, Acer rubrum, contributed by the local nurseryman. Each student received a loblolly pine seedling from the state forestry commission nursery to plant at home and to measure and compare height changes with that of the child as both grow skyward.

Dr. Arlene Marturano is a dedicated naturalist and environmentalist who trains teachers in elementary and outdoor education. Research and experience have reinforced her conviction that children learn naturally and readily through activities like gardening.

Each Arbor Day native tree is a life support system for native animals. Tulip poplar hosts the life cycle of the state eastern tiger swallowtail butterfly and twenty other Lepidoptera (Tallamy, 2007). Maple and pine tree species host over two hundred Lepidoptera (Tallamy, 2007). Furthermore, these trees offer shelter, nesting, seeds and insect biomass for birds, rodents, and small mammals.

In weeks preceding Arbor Day teachers signed-up to bring students to the picnic tables for classes pertaining to trees. In **Tree Cookie Class** students decorated seven-centimeters-wide eastern red cedar slice pendants to wear on Arbor Day. **Acorn Class** provided two choices; some classes made acorn cap finger puppets for a dramatic play and other classes tested the viability of harvested acorns in Sinkers and Floaters, a test for acorn viability that sparks inquiry. Acorns are dropped into a pail of water. Children wonder why some float and some sink; sinkers are considered to be viable seeds. Students planted them in milk cartons filled with soil to test if the acorns sprouted oak seedlings. Floaters were skimmed off the top of the water; some were dissected to explore possible causes for floating like insect damage or air space in the shell. Some floaters were planted to test viability. Remaining floaters were fed to squirrels and birds on campus.

In **A Holiday Tree for the Birds** students made edible ornaments for birds like popcorn chains and seed balls to hang from an evergreen Christmas tree donated by a local tree farm. In **Leaf Men** each student made a leaf man with a sycamore leaf, small acorns for eyes, and sweet gumball nose. Leaf men were placed across the lawn and students watched the wind blow them away as in the children's book *Leaf Man* (Ehlert, 2005).

In **Pine Needle Brooms** children formed brooms to use in

the classroom, outdoors, and at home by lining up loblolly pine needle sheaths to 4 cm in diameter thickness and fastening the bundle together with a rubber band. The activity triggered fond memories for one teacher who had not made natural brooms since childhood.

These short and simple series of sign-up classes made teachers more comfortable and confident in managing students for outdoor instruction and in using the natural environment as the content and context for nature-based science instruction.

First grade teachers, encouraged by student interest in outdoor learning, scheduled a field trip to the nearby National Wildlife Refuge in spring during neo-tropical songbird migration. Classes rotated to four stations: bird behavior and identification, a touch museum of local natural history artifacts and wildlife dioramas, a nature trail hike to a green frog pond, and a climb to the top of a Santee Indian ceremonial and burial mound for a local history lesson.

After the daylong field trip, the first graders decided to adapt their raised bed vegetable plots to a local native Indian three-sisters garden of corn, beans, and squash using marigolds and sunflowers as trap crops.

Connecting Curriculum and Community

By the end of the second year of professional development, teachers were engaging children in explorations in the outdoor classrooms. The charge and challenge for the final year of professional development was to write a curriculum to align with state adopted science standards for each grade. Common sense dictated that the first-hand evidence from what comes naturally in the community was the starting point for introducing the standards.

The creation of the outdoor classrooms and the subsequent arrival of the curriculum cast made the task of reaching rural children much more manageable, meaningful, and memorable for teachers and students. By deliberately engaging teachers and students in restoration of habitat with native plants, we not only attract insects, reptiles, birds, and mammals for continued observation and concept development, but we also enliven and energize curriculum with engaging activities and inductive methods. After three years of experiential professional development, teachers were ready to reach rural children with what comes naturally.

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Turtles, Nurdles, and **Our Hurdles**

Two subject matter experts share their views on the global challenge of plastics in our environment.

BY KAREN MARTINEK, GFWC ENVIRONMENT COMMUNITY SERVICE PROGRAM CHAIRMAN

As GFWC Environment Chairman, I wanted to interview two subject matter experts about the global challenge of plastics in our environment. I selected these two professionals whose extensive plastic waste research and cutting-edge innovations provide valuable perspectives about why your help is needed with the 2020–2022 GFWC Challenge Project: Reduce Plastic Use: Refuse, Reuse, Repurpose, and Recycle. Submit your project success stories to PR@GFWC.org.

About the Experts Interviewed

Jace Tunnell is the Director for the Mission-Aransas National Estuarine Research Reserve (NERR) located on the coast of southern Texas. He is an expert in marine conservation and water quality.

The Mission-Aransas NERR or "Reserve" is a federal and state partnership that conducts research, education, and stewardship programs. This program is funded by the National Oceanic and Atmospheric Administration (NOAA) and is managed by the University of Texas Marine Science Institute. There are 29 Reserves around the country and each reserve is a "living laboratory" in which scientists conduct research and educators communicate research results.

Dr. Peter Thorne is head of the Department of Occupational & Environment Health and Director of the Environmental Health Sciences Research Center at the University of Iowa. He is a well-respected environmental toxicology expert and has held a number of prominent national leadership positions, including serving as chairman of the U.S. Environmental Protection Agency's Science Advisory Board.

How extensive is the "plastics in the environment" problem?

Tunnell: The beaches are covered with plastics of all types, especially single-use plastics that are lightweight and blow out of vehicles, such as plastic bags and Styrofoam cups. Those single-use plastics are the worst.

Cleanup groups that count the trash collected in filters report that cigarette butts and Styrofoam are the number one and two culprits. On the Texas Coast, plastic bags are arriving on beaches from all over the world, but especially from Asia, Brazil, and South Africa as a result of the ocean currents.

Thorne: This is a global concern. We have been shipping our plastic waste to China for years, but now we are sending it to countries unable to manage even their own waste. Plastic is now entering our oceans at a faster pace than before.

The Great Pacific Garbage Patch is the name for a collection of marine debris that accumulated over time due to converging ocean currents called gyres. The swirling action continually collects additional trash and sends pieces off to other countries by way of ocean currents. The Great Pacific Garbage Patch is roughly 1.6 million square kilometers according to scientific reports. This is larger than the combined area of eight Midwest states: Iowa, Kansas, Minnesota, Missouri, Nebraska, North and South Dakota, and Wisconsin. It is nearly impossible to envision harvesting the trash that covers this huge area of ocean.

Tunnell: There have been efforts to clean up the Patch that have run into problems. There has been better luck cleaning up the waste in the rivers before it can enter the ocean.

What was one of the most troubling discoveries you've made during marine life rescues?

Tunnell: Any time the air temperature drops suddenly and water temperatures drop below 50 degrees, sea turtles become lethargic and float to the surface where it is even colder. They can't move or swim to warmer habitats and, consequently, freeze or drown.

In February, when Texas had an unusual and unexpected freeze, sea turtles were cold-stunned and paralyzed from below-normal water temperatures. Hundreds of volunteers went out in search of stranded sea turtles in area canals and beaches, rescuing those found alive. We warmed and cared for them inside our marine rescue facility until the temperatures rose, allowing them to be returned to the gulf waters. We were able to save nearly 35% or 5,000 of located turtles. While cleaning our facility, I was surprised to see many brown plastic bags on the floor. I was shocked when realizing they had been

excreted by the sea turtles. The turtles not only survived the cold water crisis, but also a life-threatening event: plastic ingestion. All marine life and humans are at-risk from plastics as they have now entered the food chain and our water supply.

Is recycling sufficient to handle the plastics problem?

Both Thorne and Tunnell mentioned the NPR Frontline Broadcast reported that the plastic industry never believed that widespread recycling would be viable. The industry had led the public to believe that they were handling the plastic waste, so that the public and government would continue to feel comfortable with plastic production. They used the idea of recycling to sell more plastic. Some recycling was taking place, but not in the manner we were led to believe. Some plastics may have been down-cycled, but after they become carpets, benches, or other items, they are done and off to a landfill. We need a circular economy or closed-loop recycling system.

Thorne: According to the EPA, in 2018 we only recycled 8.7% of our plastic waste.

Besides the single-use plastics; plastic bags, water bottles, cigarette butts, straws, and Styrofoam containers; students in my classes have reported that the fashion industry has also begun contributing heavily to the landfills. People are no longer recycling their clothing as in the past, due the lower cost of clothing now manufactured in developing countries.

Municipalities are finding recycling cheaper than sending waste to landfills. Landfills are expensive to build properly to keep toxins from leaching into the ground water and they are expensive to maintain. The landfill gate charges, or charges per tons dumped, continually rise.

What are microplastics?

Tunnell: Any piece of plastic smaller than five millimeters (that is less than ¼ of an inch).

Thorne: Microplastics come from a variety of sources, including from larger plastic debris that degrades into smaller and smaller pieces when it has been weathered. Sometimes it reduces in size from being tossed about in the ocean. Many cosmetics and cleansers use tiny mini particles of plastics or microplastics as exfoliants or abrasives in their products.

Is it true that toxic chemicals are attracted to and attach to microplastics in the oceans and other waterways?

Tunnell: When the microplastics have weathered, the surface area expands with minor cracks and scratches allowing chemicals that are in our waters to easily attach. Chemicals in our water such as polychlorinated biphenyls (PCBs) dichloro-diphenyl-trichloroethanes (DDTs), polycyclic aromatic hydrocarbons (PAHs), dioxins, and mercury are all persistent chemicals. Because they don't break down and go away, these chemicals could be a problem when it comes to fish that we eat. However, it is not yet known if the chemicals attached to plastics that fish ingest are actually transferred into the muscle portion that we eat. Texas A&M is currently conducting this research.

Have microplastics entered our food chain and water supply?

Tunnell: Yes, microplastics have entered our food chain and water supply. I have heard that we all ingest roughly one credit card worth of plastic each week.

Thorne: Microplastics have entered our food chain and so have the chemicals that are absorbed by these microplastics. The known chemicals are PBTs—persistent; bio-accumulating, accumulating over time; and toxic. They are also bio-magnifying, increasing in concentration as we move up the food chain. Many of these chemicals are known carcinogens.

Microplastics are in all surface water and also bottled and tap water. In fact, tap water may be safer than bottled water, because at least it is tested. If a well is deep enough, it is possible that the water in the well may be free of the microplastics, but I wouldn't guarantee that it is still microplastic-free by the time it comes out of your tap. When you wash your face or brush your teeth, the microplastic particles in the cosmetics and toothpaste are washed down the drain and easily pass through water-filtration systems, ending up in our surface water.

What are nurdles? Where are you finding them?

Tunnell: Nurdles are small buds or pellets of raw material used together with additives in the manufacture of plastic products. They are usually around four millimeters in size. So yes, they are considered microplastics. They look like fish eggs or seeds. They can be smooth and round, square and clear, opaque, or look like colored pellets.

They tend to blow out of freight cars on the roads, trains, or ships and can often be spilled when loading these cargos. When they are dropped or swept into the rivers or other waterways, they may eventually contaminate the water.

They later wash up on riverbanks or beaches and cause poisoning to any animal that ingests them. Animals that eat them feel full and can ultimately starve to death from lack of nutrition.

What is the Nurdle Patrol?

Tunnell: It's a volunteer patrol project lead by the Mission-Aransas NERR at the University of Texas Marine Science Institute. This project started with a spill in Corpus Christi of 300,000 to 1,000,000 pellets. Now volunteers around the world count and report their nurdle findings to the nurdle interactive map; anyone can keep statistics.

When we see a pattern or a huge deposit of nurdles, we can then take action and speak with inspectors or elected officials. This raw plastic can be in the form of pellets, flakes, or powders. We are attempting to gather information about where the nurdles are located, remove them from the environment, and create awareness about the issue of nurdles.

To become involved, go to www.NurdlePatrol.org, which has a link to our Facebook page. We have a free nurdle kit available to send to teachers. It has a curriculum for students to learn about how plastics reach the ocean and all the materials needed for teachers to explain the problems and solutions clearly.

Should the manufacturers of plastics be responsible for the waste management of their products?

Thorne: Many companies have established corporate sustainability and responsibility statements that include cradle-to-grave product stewardship. It would be great if companies manufacturing plastic products, or selling their products in plastic containers, would do so as well.

What can governments do to reduce the burden?

Thorne: We must encourage our elected officials to ban or limit single-use plastics. Granted, there are some single-use plastics that we probably will keep. Governments should offer incentives for innovations. We need biodegradable plastics.

Tunnell: We not only need biodegradable products, which could still take 50-100 years to degrade in our landfills. We should strive for compostable products.

What hurdles do we encounter with lawmakers and innovators regarding plastic production, waste, and recycling?

Thorne: New technology and innovations are not necessarily cost effective for the manufacturers or the consumers. Plastics are relatively inexpensive and there is a convenience factor associated with disposable plastics.

Tunnell: The petroleum industry sells the oil for plastics, and that industry is extremely powerful. They have succeeded recently in prohibiting bans on single-use items in some states.

What can citizens or their communities do to reduce the plastic waste problem?

Tunnell: Collect numbers and data; provide statistics on trash hotspots found in cities. Maybe additional trash cans in those high-trash locations could be the solution proposed.

Start a movement. Contact our political leaders. Continue to recycle the single-use plastic we have. We should do what we can to keep this plastic out of the oceans and landfills. Upcycling or down-cycling plastic is a temporary fix. That is better than nothing.

Tunnell and Thorne: Encourage or purchase products packaged only in glass, paper, aluminum, or tin. Those materials *do* recycle well.

Thorne: Refuse to ask for or accept single-use plastic products. We need to do away with plastic bags. Make responsible choices when we make purchases.

Four Fine Houseplants, Room by Room

BY BARBARA PLEASANT

After more than 20 years of study, scientists have verified that houseplants and people belong together. Keeping a plant on your desk may help you focus and make fewer mistakes, and sharing space with a blooming houseplant can speed healing or simply boost your mood. All houseplants help clean the air with their respirations, another way they earn their keep.

You need not turn your home into a jungle to enjoy the benefits of houseplants, and in fact it's best to start small, with a few well-chosen green companions like those described below. Spread your riches by stationing plants in different rooms, so you see them as you enter the doorways. The good feng shui created by houseplants is like a natural magnet of calm.

For the Dining Room: *African Violet*

Native to Kenya and Tanzania, African violets *(Saintpaulia hybrids)* are the perfect petite blooming houseplant for a formal room. Available in a huge range of colors, African violets bloom best when kept near a bright window equipped with a sheer curtain, or you can grow them under artificial lights. A happy plant makes a fine centerpiece for any table, in part because African violets prefer glazed pots, which limit evaporation of moisture. Better yet, use a two-part African violet pot, which includes its own water reservoir.

Tip: Snip off old flower blossoms with sharp scissors. In spring and summer, use a purchased African violet fertilizer to support new growth.

For the Office: *Rabbit's Foot Fern*

Originally from Fiji, rabbit's foot fern *(Davallia fejeensis)* is like having a companion pet at work. The shallow roots are covered with fine hairs that resemble fur, and over time they make a sleepy crawl over the edges of their container. The fern's mossy feet are nice to touch, and the glossy fronds love to be misted with a fine spray of water. Maintenance is limited to keeping the soil moist, and snipping out old fronds that lose their looks.

Tip: Grow rabbit's foot fern in a low, wide container placed in bright indirect light.

For the Family Room: *Spider Plant*

Members of GFWC are generous by nature, which is a good reason to station a spider plant *(Chlorophytum comosum)* near a bright window. Whether hung in a macrame hanger or allowed to prosper in a pot, spider plants make offspring on long arching stems, and then they make more. The pups can be potted up and shared, and meanwhile, the plants are champs at filtering pollutants from the air.

Tip: Like other houseplants with long, strappy leaves, spider plants may develop brown leaf tips in response to fluoridated water. Use distilled water or rainwater to prevent this problem.

For the Kitchen: *Aloe*

Ancient Egyptians called aloe "the plant of immortality," and Cleopatra used it as part of her beauty regimen. In the modern age, fresh gel from a cut aloe leaf is in a class by itself for soothing and healing minor kitchen burns. It really does work, sometimes miraculously so, which totally justifies keeping an aloe plant in a bright kitchen window. An easy-care succulent, aloe can get by should you forget to water it, and you can move it outdoors in summer if you like. Happy aloe plants produce little pups (side shoots), which can be potted up for sharing.

Tip: If you have extra aloe leaf left after treating a kitchen burn, pop it in the freezer. The next time a hot cookie sheet gets too close, use the frozen aloe piece to treat the injury.

Award-winning garden writer **Barbara Pleasant** is the author of *The Complete Houseplant Survival Manual* (Storey Publishing) and numerous other books. Her website is barbarapleasant.com.

Protecting Pollinators

BY MARIAN ST.CLAIR, GFWC INTERNATIONAL PRESIDENT

Declining bee populations are a grave concern across the United States. Honeybees have struggled with mites, viruses, and climate factors for many years, but now they are not the only pollinators in trouble. Some experts believe that native bees are also in a steep decline. According to a survey by the Xerces Society, a conservation group focused on safeguarding invertebrates and their habitats, many native bumblebee species are also failing.

Butterflies, moths, flies, birds, bats, and beetles are all valuable pollinators, but bees are especially important because of their impact on a wide range of agricultural crops. Apples, peaches, and blackberries are just a few of the fruits grown in U.S. that are pollinated by bees. Countless vegetables, nuts, and herbs also require the help of these industrious insects.

The annual financial benefit of managed honeybees in our country is estimated to be more than 20 billion dollars. Native pollinators also add to the productivity of crops and are especially important in the survival and reproduction of native plants.

Acknowledging the importance of these and other pollinators, public officials across the nation have designated June 21 to 27, 2021, as National Pollinator Week, as urged by Pollinator Partnership (www.pollinator.org), an organization working to protect the species vital to our North American ecosystems and agriculture.

There are many factors contributing to the decline of both managed and native bees, but homeowners and gardeners can have a positive effect on populations by adopting pollinator-friendly practices.

One of the most important is preserving or providing habitat. Stumps, wood piles, rocks walls, leaf debris, and even the odd patch of bare ground will attract bees to the home landscape. You can also purchase or make bee nesting structures, but these homes should be cleaned every few years to prevent the spread of disease.

It is also vital that we reduce the use of pesticides as much as possible, as they pose the greatest danger to all insect pollinators. Bees, in particular, are extremely sensitive to contact with pesticides and their residues. Whenever you can, adopt cultural and mechanical practices to keep insects at bay, such as utilizing row covers and other barriers. When the use of a pesticide cannot be avoided, select a low-impact control, and then apply it late in the day when pollinators are less active.

Finally, plant lots of flowers to provide the pollen and nectar that bees need to thrive. Research shows that large patches of blooms are more attractive to bees than individual flowers. So, plant colorful sweeps of blooms rather than dotting a few plants here and there. Do your best to keep the feast going from spring to fall.

While the U.S. climate varies from region to region, here is a brief list of exceptionally good pollinator plants that grow in many parts of the country. In spring add poppies, larkspur, violas, dianthus, foxglove, and chives to the garden; in summer plant borage, monarda, lantana, coneflowers, cosmos, and zinnias; then, as summer begins to wane, close the growing season with black-eyed Susan, agastache, cleome, asters, tithonia, and sunflowers.

Plant spring-blooming foxgloves for a bee-friendly garden.

For more information on safeguarding and encouraging pollinators, learn more from the U.S. Forest Service at www.fs.fed.us/wildflowers/pollinators/gardening.shtml.

LOOKING FORWARD

Celebrating Fall with a Succulent-Packed Pumpkin

BY MARIAN ST.CLAIR, GFWC INTERNATIONAL PRESIDENT

I enjoy every season to the fullest, but fall is my favorite. After a busy summer of activities and travel, nesting at home is a special delight. Plus, it is fun to jump back into cooking, crafting, and gathering with family and friends.

Years ago, when succulents became popular, I saw a magazine cover featuring a pumpkin covered with these fleshy plants and knew immediately that I would make one. Though creating the seasonal decoration is not a snap, the result is always worth the effort.

To make your own stunning succulent-packed pumpkin this fall, chose a hard-skinned, Cinderella-type fruit which is roughly twice as wide as it is tall, select 10 to 12 succulents, and then gather a six-inch-wide plastic pot liner, an 18-inch square of green sheet moss, a piece of reindeer moss, a can of spray adhesive, a hot glue gun, and three or four felt guards.

Easy-to-care-for succulents are perfect for a project where moisture will be limited because the drought-tolerant plants store water in their leaves. Choose a varied collection of plants that contrast in size, color, and shape. Include a couple of running sedums to create tendrils of foliage that cascade

over the side of the pumpkin, plus a half dozen medium-size rosettes or clusters, plus a trio of taller plants for the top.

The first step is to clean and buff the pumpkin with a soft cloth, add felt guards to protect its bottom, and then spray the center of its top with adhesive. Estimating the correct size (typically 10 inches), tear a round piece of sheet moss and press it into the wet glue. Then, hot glue the plastic pot liner, reduced to an inch tall, to the center of the moss, leaving a protective ring of green extending beyond its rim.

The plastic pot liner is essential. It protects the top of the pumpkin from moisture that would cause it to rot, and it provides a holding dish for the roots of the succulents so the plants can be repotted later.

While the glue dries, pull the plants from their pots, shake away most of their soil, and prune their longest roots. Add some of the excess soil to the liner to provide a base for the plant roots. Then, mist the reindeer moss with water and set it aside to become soft and pliable.

Though creating the seasonal decoration is not a snap, the result is always worth the effort.

Arrange the plants from edges of the pot liner toward its center. The running sedums, broken into small sections as needed, should be positioned so their roots rest inside of the liner and their tendrils cascade over the sides of the fruit. Nestle the medium-size rosettes and clusters over the sedums, forming a natural depression for the addition of the final grouping of upright plants.

As you go along, hot glue small patches of sheet moss among the succulents to keep them in place. The moss is especially helpful when positioning the tallest plants. As a finishing touch, arrange some of the reindeer moss among the succulents, to highlight their colors and forms.

Care is simple. Keep the seasonal arrangement in an area with bright light and away from direct sources of indoor heat. Mist succulents once or twice a week with water to keep them beautiful. If the decoration retains its vitality through Thanksgiving, the pumpkin can be painted silver, gold, or white to extend its use through the December holidays.

Nurturing Membership Through Club Culture

BY BECKY WRIGHT, GFWC MEMBERSHIP CHAIRMAN

While we may be adapting to the new normal, one important aspect of nurturing membership is constant: club culture. In our efforts to create rewards for members, we must first assess the environment that exists within our clubs to ensure that the culture is inclusive and encouraging to growth. Recruitment and retention are equally important for sustainable membership growth. Both require us to cultivate an environment where all members have room to unite, thrive, and know the value of their contributions.

Members join clubs to fulfill one of the most basic of human needs: a sense of belonging. Thriving clubs fulfill this need by creating a welcoming environment that exemplifies our motto of *Unity in Diversity*. Creating a culture that shapes growth and development among members, cultivates teamwork through collaboration, and shows respect and appreciation through rewards and recognition of member contributions will increase sustainability and retention.

The atmosphere of an inclusive club culture should be evident the moment a prospective member visits and should continue after a new member joins. We want our guests and members to feel wanted and needed, but sometimes our subliminal messages say otherwise. If you have ever felt the excruciating feeling of walking into a meeting where all the seats were taken, then you know what I'm talking about! Even worse is to approach a table only to hear, “this seat is saved.”

When we open up to accept others by giving them a seat at the table, we learn that strength lies in differences. We learn to understand Mahatma Gandhi’s words that "no culture can live if it attempts to be exclusive."

Moreover, inclusion is a crucial nutrient for our clubs and members to thrive. We know that retention is the single most important goal for growth and begins the moment a member joins GFWC. Cultivating member development should begin immediately. It is important that we nurture new members as we would seeds in our garden, providing all the nutrients they need to thrive and bloom when planted. Cultivating a highly engaged club culture allows new members to add their skills, experience, and enthusiasm. However, it is still important that we initiate a mentoring culture and offer a new member orientation to provide the history of our Federation, accomplishments, members’ responsibilities, and Bylaws. This initial time investment acclimates members to the club and helps them thrive.

How would you define the culture of your club? Have you taken a look through the lens of prospective members lately? Would you view your club as exclusive and cliquish or inviting and inclusive? What is your club doing to cultivate an environment for sustainable membership growth?

Recruitment by the Numbers

Junior Women's Club of Butler – **21**
Butler, PA

GFWC Fort Pierce Woman's Club – **19**
Fort Pierce, FL

New Century Club of West Chester – **16**
West Chester, PA

GFWC Gainesville Woman's Club – **14**
Gainesville, FL

GFWC Melville Woman's Club – **13**
Melville, LA

GFWC Rotunda West Woman's Club – **11**
Rotunda West, FL

GFWC Woman's Club of Fernandina Beach – **8**
Fernandina Beach, FL

GFWC Pinellas Seminole Woman's Club – **7**
Seminole, FL

New Brighton Civic Women's Club – **7**
New Brighton, PA

GFWC Atlanta Woman's Club – **6**
Atlanta, GA

GFWC Junior Woman's Club of Spring Township – **6**
Spring Township, PA

GFWC Woman's Club of Palatka, Inc. – **6**
Palatka, FL

GFWC Millville Woman's Club – **5**
Millville, NJ

GFWC Sweet Home Alabama Volunteers – **5**
Fairhope, AL

GFWC Woman's League of the Low Country – **5**
Bluffton, SC

GFWC Intermediate League of Butler – **4**
Butler, PA

GFWC Legacy – **4**
Huntsville, AL

GFWC St. Andrews Woman's Club – **4**
Irmo, SC

GFWC Tuesday Club of Columbia – **4**
Columbia, MO

GFWC Wesley Chapel Woman's Club – **4**
Wesley Chapel, FL

Junior Women's Club of Boyertown – **4**
Boyertown, PA

GFWC Woman's Club of Charleston – **4**
Charleston, SC

Junior Women's Club of Lake Murray – **4**
Ballentine, SC

GFWC Charlotte Woman's Club – **3**
Charlotte, NC

GFWC Coral Gables Woman's Club – **3**
Coral Gables, FL

GFWC Elizabeth City Woman's Club – **3**
Elizabeth City, NC

GFWC Henderson Junior Woman's Club – **3**
Henderson, NC

GFWC Lutz-Land O'Lakes Woman's Club – **3**
Lutz, FL

GFWC Jupiter-Tequesta Woman's Club – **3**
Tequesta, FL

GFWC North Pinellas Woman's Club – **3**
Safety Harbor, FL

GFWC Porta Gorda Woman's Club – **3**
Punta Gorda, FL

GFWC Satellite Beach Woman's Club – **3**
Satellite Beach, FL

GFWC Village Improvement Association – **3**
Rehoboth Beach, DE

GFWC Woman's Club of Clayton – **3**
Clayton, NC

GFWC Woman's Club of Cranbury – **3**
Cranbury, NJ

GFWC Woman's League Mt. Holly – **3**
Mt. Holly, NJ

GFWC Woman's Club of Sarasota – **3**
Sarasota, FL

GFWC Zwaanendael Women's Club – **3**
Lewes, DE

Create an Environment Where Leaders Can Flourish

BY SUSAN GETTYS, GFWC LEADERSHIP COMMITTEE MEMBER

Grassroots leadership efforts begin when effective leaders work diligently to create an environment where new leaders thrive and existing leaders flourish. This essential process nurtures clubs' successes to support the needs of our communities. All members have potential to develop leadership skills and be an integral part of a club whether serving as officers, committee members, or in another role. Existing leaders must nurture and train members to help them identify their own leadership possibilities.

In *The Leadership Challenge,* authors Kouzes and Posner address five practices of exemplary leadership. Practice 4, Enable Others to Act, describes a variety of ways to build skills in potential leaders. Current leaders must act to build the competence and confidence of their members, beginning with educating and sharing pertinent information to keep everyone abreast of club happenings. Members need to be involved on committees and given leadership roles within the committees. Leadership should be rotated so everyone experiences a variety of tasks, thus building more skills. Members should be allowed to identify project tasks that fit their skills or those they would like to learn. Leaders can provide coaching with constructive feedback where needed. One way to help members strengthen their leadership skills is to ask questions instead of providing answers. When people are asked questions, they are being encouraged to solve problems themselves and stretch their thinking to new ways. If a leader always provides the answers, members do not get the chance to provide their own input into the situation and to think creatively about solutions. Creating an environment for learning is critical for growing leaders.

Leaders need to provide feedback when members are performing well. Everyone likes to be told they are doing a good job. Specific feedback is more meaningful. Being told that you did a good job is not as effective as specific comments such as, "Thank you for organizing our club's Earth Day project. Your ideas for ways to recycle were very creative and included some new focus areas for our club. Sharing the ideas on various virtual platforms instead of in print will definitely help our environment. Thanks for your efforts."

By providing opportunities for members to make choices relating to their tasks, leaders are transferring power and creating trust in others to carry out their decisions. Committee members begin to realize they are accountable for their own successes and failures. As leaders transfer power, they begin to serve in more of a coaching role and help others learn new skills and further develop existing talents. Providing support for growth and change is also essential to invest in building all members' confidence in their leadership skills.

Public Relations: *Planting the Seed for Membership Growth*

BY KARYN M. CHARVAT, GFWC COMMUNICATIONS AND PUBLIC RELATIONS CHAIRMAN

Over the past year, we've focused heavily on remote communications and social media tips and tools, but no association can truly grow without some form of public relations.

You can certainly add members to your club but also need a solid membership strategy, one that forms deep roots to sustain memberships year after year. A fluid public relations strategy must also be deployed.

Let's start this conversation by defining public relations: a proactive (not reactive) communications plan that focuses on building and maintaining your club's positive public image. PR used to be all about press releases and publicity stunts, but today it is so much more with a healthy mix of strategies:

- Thought Leadership
- Social Media
- Media and Influencer Relationships

Thought Leadership

Utilizing your organization's top leadership as spokespersons to be brand ambassadors for your club is a great way to catch the attention of a potential member. Credibility and transparency are key to establishing trust with the public, which goes far in forming and shaping a public image. Promoting a club president's blog in social media posts and/or having her write an op-ed for your local publication are both excellent examples of how to utilize leadership to increase awareness. Hosting an online Q&A forum where the club's top leaders serve as panelists is also an effective way to showcase your club.

Social Media

Focus on your club's public image when planning and developing your social media content. Building an online community is a core strategy, whether that community is public or private for members-only. Strengthening your online presence creates a community of ambassadors ready to support your brand online—even defend it if needed.

If your club has a Twitter account, use it to engage with members of the press.

Media And Influencer Relationships

Develop relationships with local publications and news sources through social media, press releases, etc. Build relationships with individuals who are already familiar with your club and can act as brand ambassadors by promoting it within their own online networks.

Public relations is such an important piece to your club's communications plan. You always want to get out in front of a story, rather than be the story. Be proactive, rather than reactive.

The Communications and Public Relations Committee will be concentrating on this topic for the rest of this year through its newsletters and workshops. If we can be of help to you, please do not hesitate to reach out to myself or any member of the Committee. Our contact information is available within the Club Manual, filed under "C" in the Digital Library Resources.

Participate in #IamGFWC

Join the GFWC Membership Committee and many others and show the world who clubwomen are! By following the example below, you can play an important role in the 2020–2022 social media campaign by using the #IamGFWC hashtag along with a photo and brief description of yourself.

Example:

Marian St.Clair is GFWC's 2020–2022 International President, a horticulturist, and a freelance writer. She enjoys traveling and creating her own artwork for décor, as she did for the President's apartment at GFWC Headquarters.