

STRATEGIC PLAN

2022-2027



MISSISSIPPI STATE UNIVERSITY™
DEPARTMENT OF WILDLIFE,
FISHERIES AND AQUACULTURE

OUR *mission:*

Promoting the wise stewardship and management of our natural resources by advancing fisheries, wildlife, and aquaculture science, extending that knowledge to end-users, and training the next generation of professionals.

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OUR *vision:*

By 2028, our excellence and leadership in the field of natural resources will distinguish us as one of the foremost programs in the country for undergraduate and graduate education. The Department of Wildlife, Fisheries and Aquaculture (WFA) will be the top-ranked, premiere academic institution in the Southeast for training and research in applied wildlife, fisheries, and aquaculture science management. Our success will be based on

4 CORE PRINCIPLES.

- **WFA WILL CHAMPION AND TEACH** the North American Wildlife Conservation Model based on the principles that fish and wildlife belong to all Americans and need to be managed in a sustainable fashion for future generations.
- **WFA SCIENTISTS WILL BE RESPECTED** for conducting world-class research, while pioneering innovative, creative solutions to sustainably manage wildlife, fisheries, and aquaculture resources.
- **WFA WILL BUILD NATIONAL AND GLOBAL CAPACITY** to address biodiversity conservation by educating and inspiring the current and next generation through undergraduate, graduate, and professional education that emphasizes science-based approaches to conservation and decision making.
- **WFA WILL BE A LEADING LOCAL, REGIONAL, AND NATIONAL PROVIDER** of objective, science-based information and educational materials on wildlife, fisheries, and aquaculture management to our diverse communities, policymakers, federal and state agencies, universities, nongovernmental organizations, K-12 schools, and the public.

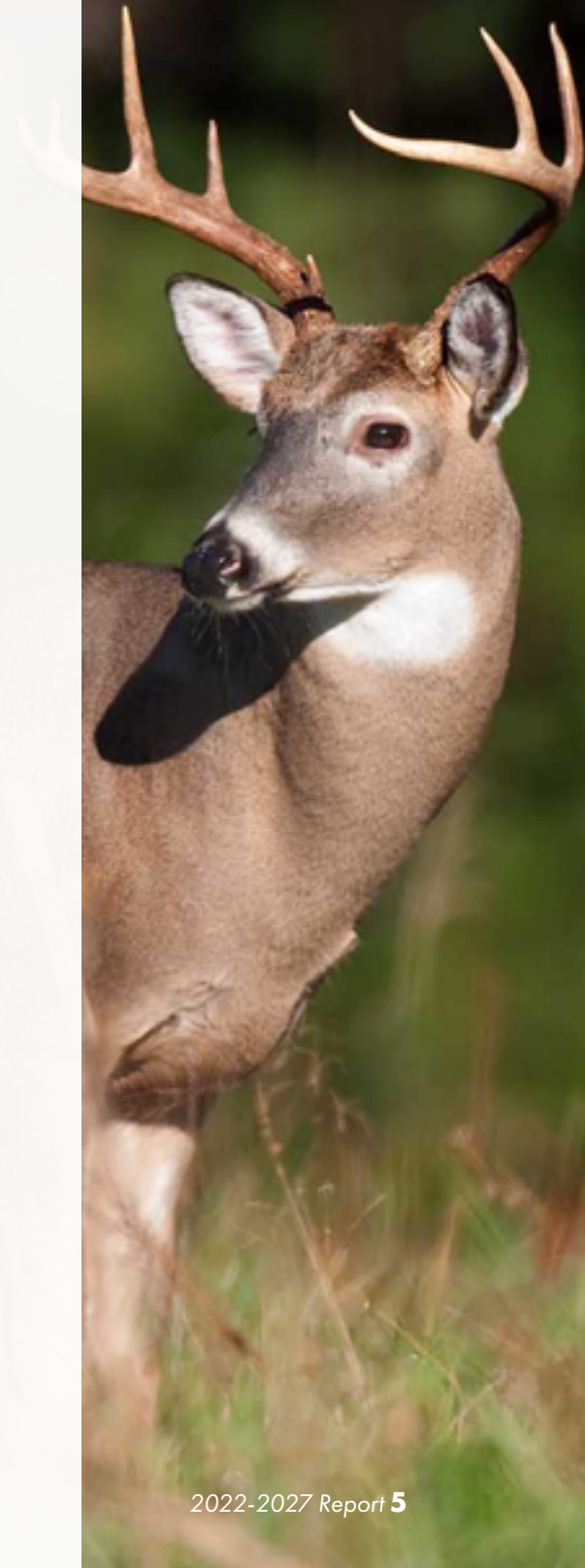
OUR *core values:*

- **DISCOVERY** – Fostering new knowledge and appreciation of our natural resources, while advancing curiosity and lifelong learning.
- **COLLABORATION** – Stimulating new ideas, actions, and outcomes by building bridges between partners and communities in novel ways to achieve a sustainable future for wildlife and fisheries.
- **STEWARDSHIP** – Taking individual and collective responsibility for the natural world and the societies within it, and pursuing actions to ensure their resilience and continued health.
- **COLLEGIALITY** – Ensuring a culture of mutual respect, appreciation, and trust that supports meaningful interaction and collaboration among students, faculty, staff, postdoctoral scholars, and those in communities beyond MSU.
- **SUSTAINABILITY** – Recruiting, welcoming, empowering, and supporting a community of widely divergent backgrounds, viewpoints, and experiences essential for greater productivity, more innovation, and better decision making.
- **INNOVATION** – Encouraging novelty, creativity, progressiveness, risk taking, and flexibility as we proactively meet challenges and address future challenges to wildlife, fisheries, and aquaculture management; we will systematically develop and promote these innovations and services for use by our stakeholders.

OUR *differentiator:*

REPUTATION

- **WE ARE LOCATED** in an area of high biodiversity and rich natural resources.
- **WE HAVE A STRONG FOCUS ON APPLIED MANAGEMENT AND CONSERVATION** with real-world impact.
- **WE TRAIN PEOPLE TO MAKE A DIFFERENCE** in the conservation of wildlife and fisheries.
- **OUR PRODUCTS ARE EFFECTIVE, MEANINGFUL, AND IMPORTANT** to society.
- **OUR EDUCATION AND RESEARCH SPAN** terrestrial, aquatic, and marine ecosystems.
- **WE PROVIDE INTENTIONAL WORKFORCE TRAINING** through experiential learning and professionalism.



REPUTATION

- **WE ARE THE LARGEST, MOST COMPREHENSIVE** wildlife and fisheries program in the Southeastern Conference.
- **OUR QUALITY EDUCATION AND RESEARCH LEADS TO A 95% JOB PLACEMENT** in wildlife and fish professions; our students and faculty are widely sought after.
- **THE DEPARTMENT FOSTERS** an appreciation for nature, building and maintaining public trust in conservation efforts and ensures people have access to nature for recreation, education, and enjoyment.
- **OUR PRESTIGIOUS ACADEMIC PROGRAMS** in wildlife and fisheries are taught by renowned faculty.

SERVICE

- **OUR FEDERAL AND STATE PARTNERS ARE UNIQUELY EMBEDDED** within our programs, creating unique career pathways for our students' professional development.
- **OUR FACULTY, STAFF, AND STUDENTS IMPACT THE COMMUNITIES** we serve by embracing the land-grant mission of service.
- **WE COLLABORATE, PARTNER, SHARE, AND GIVE OF OURSELVES** for a better and more sustainable planet, rich in wildlife and fisheries resources.
- **WE ADAPT, INNOVATE, AND PIVOT TO MEET THE DEMANDS** of our communities and stakeholders who hold natural resources in trust.



VALUE

- **GREAT STUDENT TO TEACHER RATIO** – You are known and considered family.
- **OUTDOOR CLASSROOMS** – There are hands-on learning, group experiences, and field trips.
- **ACTION-PACKED LEARNING AND RESEARCH ENVIRONMENTS** – Students can volunteer to help on research projects.
- **SUPPORTIVE AND CARING TEAM OF PROFESSIONALS** – We strive to ensure that your time at MSU is an unforgettable experience.

TRAINING

the next *generation*

GOAL 1: MAINTAIN AND BUILD CAPACITY FOR AN EFFECTIVE AND RELEVANT PROGRAM IN ACADEMIC INSTRUCTION AND TRAINING.

OBJECTIVE 1: *Promote skillsets that support effective advising for all WFA undergraduate students.*

- Require two comprehensive advising trainings for new faculty with teaching/advising responsibilities within their first year of employment.
- Require one annual continuing-education training on advising or student development for all WFA faculty with teaching/advising responsibilities.
- Develop a means to incentivize undergraduate advising via appropriate recognition in promotion/tenure, annual evaluations, and through new departmental/college advising awards.
- Deliver recommendations from the 2020 Provost Office's Student Success Task Force Report as implemented by the College of Forest Resources.



OBJECTIVE 2: Promote skillsets that support effective formal and informal teaching across faculty.

- Require new assistant professor faculty to participate in the upcoming MSU program on "How to be an effective teacher."
- Promote voluntary assessment of teaching by invited classroom sit-ins from fellow faculty, representatives of the MSU Center for Teaching and Learning, or faculty in other departments.
- Encourage faculty to employ pedagogical strategies that promote experiential learning, critical thinking, collaborative problem solving, flipped classrooms, and effective communication to diverse audiences. Recognize and share outcomes from professional development opportunities at faculty meetings.
- The WFA department head, with input from faculty, will explore funding opportunities that improve teaching support in WFA through professional development or infrastructure.
- One faculty meeting per academic year will feature presentations by guest speakers to provide regular, in-house professional development for faculty.





TRAINING

the next *generation* continued

OBJECTIVE 3: Ensure key concepts are accessible to undergraduate students through coordinated implementation in WFA classes.

- Evaluate core WFA classes, and make recommendations on learning outcomes to ensure key ecological and management concepts are integrated strategically, and communicated appropriately, throughout the degree program.
- Intentionally integrate human dimensions, global change, and social sciences into appropriate WFA classes.
- Create an elective outdoor field experience class for undergraduate students who have no background in exploring nature as an introduction to working in the outdoors.
- Determine, by end of 2024, the plausibility of a summer field program.
- If the undergraduate enrollment reaches 350 students, formally request a new instructor position.



OBJECTIVE 4: Facilitate extracurricular professional development for students, monitor career placement, and receive feedback on program strengths and weaknesses.

- Develop and deploy a WFA student exit survey in the capstone class to assess student participation in internships, professional employment, professional societies, undergraduate research, and other career-preparation opportunities to guide programmatic improvements.
- Form a student-led task force to identify professional development needs and interests of undergraduates.
- Partner with professional organizations, including those represented on the WFA advisory board, to establish two dedicated internships that can provide experience for WFA students from partner agencies.
- Explore a means of communicating professional development opportunities to undergraduates beyond e-mail.

TRAINING

the next *generation* continued

OBJECTIVE 5: Ensure consistent rigor of graduate student programs.

- Implement recommendations from the WFA Graduate Student Committee, including finalizing the Graduate Student Handbook for faculty and students by 2024. It will include current program standards, policies, procedures, and practices such as dedicated discussion at faculty meetings/retreats.
- Develop a survey instrument to evaluate the effectiveness of graduate advising to capture quality of coursework, research activities, faculty mentorship, professional development, and training. The curriculum committee and department head will review every two years and adjust as necessary.
- Require all graduate students to take the WFA 8212 Professional Communications class. The curriculum committee will review its syllabus and decide on framework for its content and structure.
- Create several newly identified graduate student courses in the department including: Conservation Genetics; Endangered Species Management; River Ecology and Management, and Advanced Landscape Ecology.
- Require all graduate students to attend a two day teaching assistant workshop and at least two professional development workshops provided each year.



GOAL 2: RECRUIT AND RETAIN HIGH QUALITY STUDENTS.

OBJECTIVE 1: *Provide student recruitment outreach that is compelling to a national audience and broadens our reach to various demographic groups across the entire southeast.*

- Work with the CFR recruitment committee to develop and deliver recruiting materials that are appealing to different target audiences, competitive with other peer institutions, and wide reaching.
- Collaborate with CFR Foundation personnel and the CFR scholarship committee to maximize financial support for academically strong students through undergraduate scholarships and graduate fellowships, including the addition of at least two new scholarships in the next five years.
- Implement youth outreach programs that promote WFA career opportunities and support recruitment into the department and natural resources overall.

OBJECTIVE 2: *Enhance faculty-student interactions to promote student development and retention.*

- Expand opportunities and incentivize positive faculty engagement with undergraduate students through directed individual studies, undergraduate research, participation in student organizations, and work experiences.
- Enhance mentoring skills of faculty through professional development opportunities.





TRAINING

the next *generation* continued

OBJECTIVE 3: Enhance student access, opportunity, and success within the WFA student body through retention and support mechanisms.

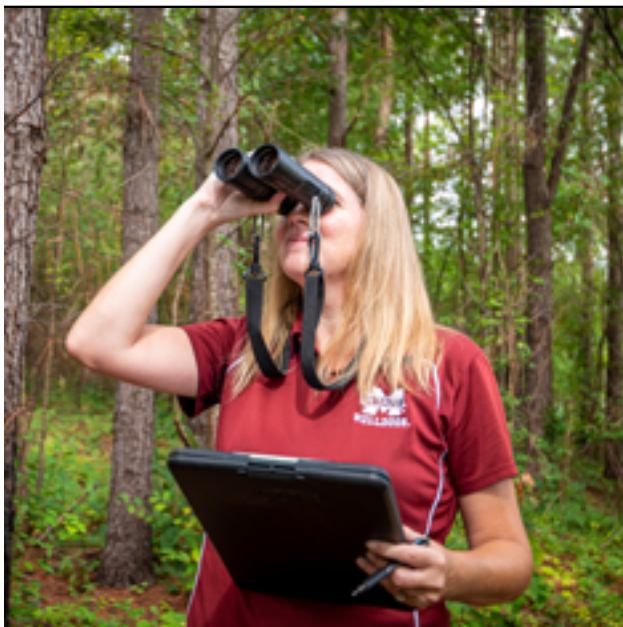
- Engage with CFR Foundation personnel to develop financial support opportunities, including scholarships, employment, and career advising.
- Provide training to all faculty and students on topics related to access, opportunity, and success in the next two years.
- Form a WFA working group comprised of faculty, graduate students, and undergraduate students to explore methods to promote retention and success of students, especially those struggling academically.
- Include informal professional development opportunities for students that focus on time management, setting SMART goals, active reading, note-taking, seeking help when needed, and fostering a sense of ownership over their learning journey.



RESEARCH

and *discovery*

GOAL 1: ENCOURAGE, SUPPORT, AND SUSTAIN IMPACTFUL RESEARCH IN NATURAL RESOURCES CONSERVATION AND MANAGEMENT IN WILDLIFE, FISHERIES, AND AQUACULTURE.



OBJECTIVE 1: *Support faculty and professional research staff in pursuit of national and international extramural funding, from both competitive and noncompetitive sources.*

- Within the next five years, form at least three collaborative faculty teams to target large national or international competitive research programs, such as the National Science Foundation, USDA AFRI, or USDA NIFA.
- Continue to recognize faculty and research teams for achievements in competitive and noncompetitive extramural funding to peers, university administration, and alumni through magazine stories, news releases, and social media.
- Provide experiential learning opportunities for professional research staff, including post-docs, associates, and interested Ph.D. doctoral students, in activities related to grants management.
- Support research endeavors at the state, regional, national, and international level that create research experiences for undergrad students.
- Within the next five years, work collaboratively with other universities, and colleges within the state and region on competitive research proposals that directly involve diverse research teams.



RESEARCH

and *discovery* continued

- Intentionally seek partnerships to support dedicated funding mechanisms, such as graduate fellowships and scholarships, to advance graduate research projects.

OBJECTIVE 2: Provide mechanisms to encourage and engage graduate students and support their research and professional development.

- Promote and encourage graduate students' application to small grant programs through professional societies, nonprofit organizations, and research foundations.
- Encourage graduate student attendance at professional society conferences, workshops, and other meetings through additional funding mechanisms to facilitate building of research networks.
- Identify opportunities and provide support for current and recent graduate students to apply for academic research, Extension, and science policy fellowships.
- Develop rewards and recognition system for peer-reviewed publication acceptance by graduate students prior to their thesis/dissertation defense as incentive to publish during their program, rather than afterward.



GOAL 2: ENSURE APPLIED RESEARCH PROGRAMS PURSUE SCIENTIFIC EXCELLENCE WHILE REMAINING RELEVANT TO STAKEHOLDERS IN THE STATE, REGION, NATION, AND INTERNATIONALLY.

OBJECTIVE 1: Engage the WFA advisory board to better identify and articulate research needs.

- Develop a survey of advisory board members administered every three years that identifies knowledge gaps that can be addressed by research.
- Work collaboratively with advisory board members to identify target funding sources to address knowledge gaps.

OBJECTIVE 2: Foster opportunities for collaboration with other academic institutions in the U.S. and internationally.

- Leverage resources to support international and national travel for faculty to engage in development of new research programs and collaborations.
- Within the next five years, form at least two transdisciplinary research teams with experts in other fields to develop research proposals that incorporate aspects of other disciplines.
- Facilitate visiting professor/scientist positions in the department.





RESEARCH

and *discovery* continued

- Identify major resources and assets that can be leveraged to attract visiting scientists and collaborative research opportunities.
- Explore the possibility of dual degree programs with academic institutions in other countries.

OBJECTIVE 3: Grow faculty capacity and programs in areas that we are deficient and provide additional teaching support for our growing enrollment.

- Hire a new tenure-track wildlife disease ecologist.
- As opportunity presents, hire term-limited, non-tenure track research assistant professors to assist with growing teaching and research needs.
- Create teaching opportunities for post-doctoral fellows or associates to strengthen their resumes and build skillsets that will make them more competitive.
- Hire a WFA coastal/marine ecologist that will also add distance class options related to a coastal ecology program.
- Investigate addition of a Coastal and Marine Ecology specialization to WFA.
- Hire a new instructor or teaching professor position to support our growth in enrollment, with an added emphasis area to focus on student success, retention, and advising effectiveness.

EXTENDING *knowledge*

GOAL 1: DEVELOP AND DELIVER PROGRAMS IN NATURAL RESOURCE MANAGEMENT AND CONSERVATION THAT MEET THE NEEDS OF MISSISSIPPI STAKEHOLDERS AND LEAD TO TRANSFORMATIONAL CHANGE.



OBJECTIVE 1: *Educate stakeholders about wildlife and fisheries conservation, land and water management, and aquaculture.*

- Annually review needs assessment instruments to inform WFA Extension program relevancy, efficacy, and adaptations.
- Employ effective methods, such as podcasts, webinars, social media, and field days, to develop and deliver research-based Extension programs that are responsive to current and emerging needs of stakeholders.
- Collaborate with other MSU faculty to conduct applied research and communicate relevant outcomes that address natural resources concerns of Mississippi stakeholders as a fundamental component of Extension programming.
- Promote recruitment of Extension professionals by engaging with graduate and undergraduate students via coursework and experiential opportunities.
- Advance employment of WFA undergraduates with the MSU Extension Service across the state.



EXTENDING *knowledge* continued

OBJECTIVE 2: Enhance evaluation of the efficacy of departmental Extension programs, educational pedagogy, and outreach methods.

- Collaborate with evaluation specialists to ensure continued and rigorous program evaluation.
- Measure the impacts of Extension activities and products using metrics, such as participation rates, changed behaviors, increased knowledge, and improved lives.
- Modify Extension program communication methods and pedagogical approaches in response to program outcomes, impacts, and feedback.
- Employ a part-time communication specialist to promote Extension activities in the department.



GOAL 2: EXPAND THE SUSTAINABILITY AND RESILIENCY OF EXTENSION.

OBJECTIVE 1: *Collaborate with diverse partners to leverage and enhance efficacy of Extension activities and outcomes.*

- Identify potential partnerships with university faculty, state and federal agencies, nongovernmental organizations, citizen groups, and other stakeholders to reduce redundancy and increase effectiveness of Extension programs.
- Leverage Extension mission through partnerships to expand the impact and enhance capabilities of our partner agencies and conservation goals.

OBJECTIVE 2: *Sustain and expand departmental support for Extension.*

- Add a departmental position to strategically support current and future programs, especially related to upland bird and waterfowl management and environmental resiliency.
- Build capacity within the department Extension staff to enhance capabilities and efficacy of outreach efforts.



INFRASTRUCTURE and *technology*

GOAL 1: ENCOURAGE TECHNOLOGY INTEGRATION IN TEACHING AND RESEARCH ENDEAVORS.



OBJECTIVE 1: Enhance faculty and staff knowledge of available classroom and research technologies.

- Regularly incorporate presentations or training workshops by MSU ITS, Center for Teaching and Learning, Libraries, and similar departments on available technology resources in faculty and staff meetings.
- Develop a repository of technical guides for research and teaching applications on departmentally-shared drives including, but not limited to, sampling tools, emerging technologies, database development instructions, analysis code, and pertinent literature.
- Encourage faculty participation in the annual Schilling grant program to support advances in classroom instruction using emerging technologies.
- Develop or participate in cross-college initiatives for technology adoption and integration into coursework and research.



OBJECTIVE 2: Expand research and teaching capacity by improving current facilities and use of new infrastructures and technologies.

- Encourage and expand use of the Forest and Wildlife Research Park for research, outreach, and meeting space and encourage new building construction for increasing research and teaching space.
- Complete Phase I expansion of the Forest and Wildlife Research Park; solicit funds for Phase II white-tailed deer research unit.
- Update research-support labs, including facilities and infrastructure, for outdoor wildlife, fisheries, and aquaculture research.
- Work with CFR administration to optimize space use in departmental buildings.
- Submit a request for Thompson Hall classroom expansion to capital bonds queue.
- Explore pragmatic solutions for improving transportation related to research, teaching, and outreach, such as vehicle lease-purchase agreements, and shared research vehicles/vessels.



DEPARTMENTAL

culture, administration

and *communication*

GOAL 1: CONTINUE TO PRIORITIZE AND PROMOTE A WORK ENVIRONMENT THAT VALUES ALL INDIVIDUALS AND SUPPORTS PROFESSIONAL AND PERSONAL SUCCESS AND LONG-TERM RETENTION.

OBJECTIVE 1: *Continue to promote and expand an atmosphere that encourages interaction, creativity, and difference of perspectives.*

- Promote creative and intentional opportunities for supporting an atmosphere of access, opportunity, and success at all levels across academic and research programs.
- Normalize and encourage work-life balance and prioritizing mental and physical health.
- Promote regular formal and informal gatherings for departmental members and their families, including tail-gates, barbecues, coffee space, outreach events, and outdoor activities.
- Continue conservation lecture series, gatherings, research and teaching updates, and MSU alumni gatherings at Wildlife Society and American Fisheries Society annual conferences.



GOAL 2: IMPROVE EFFICIENCIES IN DEPARTMENTAL ADMINISTRATION AND COMMUNICATION.

OBJECTIVE 1: Enhance management of grants, contracts, purchasing, and inventory for faculty.

- Secure hard funds from the College of Forest Resources dean and Extension director to improve sustainability of administrative team.
- Explore solutions for real-time tracking or more frequent summaries of external funding expenditures to enhance project management.
- Develop a more efficient system for tracking and removing inventory.

OBJECTIVE 2: Ensure effective and clear communication for departmental operations, governance, and mentorship.

- Enhance on-boarding of new faculty, research/Extension professionals, post-docs, and staff regarding department-level operations and professional environment.





DEPARTMENTAL *culture, administration & communication* continued

- Continue to support faculty mentorship between new and existing faculty members and include a formalized mentor training at all levels.
- Foster mentoring opportunities between faculty and post-docs, and professional research, and Extension staff.

OBJECTIVE 3: *Enrich communication channels with students to increase involvement with the department and student organizations.*

- Create student-level advisory groups to provide feedback between departmental leadership and the undergraduate and graduate student bodies.
- Develop a shared repository of policies and procedures relevant to students.

OBJECTIVE 4: *Enhance department promotion and tenure procedures and processes to promote faculty success and creativity.*

- Establish an associate to full-professor formalized mentorship program.
- Host annual spring training workshops, before P&T document due dates, on the promotion and tenure process for new and other interested faculty members.



OBJECTIVE 5: Develop a strategy to address expansion and resource needs, as well as enrollment growth.

- Develop a plan so all major core courses are offered twice a year to address bottleneck classes, especially for transfer students.
- Request a new instructor/assistant professor position to meet expanding enrollment.
- Work with MSU/CFR development offices on a strategy to grow a donor base for WFA scholarships, student support, and research initiatives.





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