



FROM ROUGH TO REFUGE: ENHANCING WILDLIFE HABITAT ON FLORIDA GOLF COURSES – FIVE YEARS OF EXTENSION IMPACT



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SITUATION & PROGRAM NEED

- Urban development in Florida is reducing and fragmenting natural habitats
- Biodiversity is critical for ecosystem services and environmental resilience
- Golf courses provide permanent greenspace within urban landscapes
- Out-of-play areas—often up to 80% of a course—offer significant opportunities for habitat enhancement and conservation
- Audubon International certification recognizes superintendent stewardship, supporting both course management and biodiversity conservation

GOAL STATEMENT

The goal of this program is to engage Florida golf course superintendents through Extension programming to implement sustainable best management practices (BMPs) that enhance biodiversity and support environmental stewardship and certification.

METHODOLOGY

- Delivered educational workshops and trainings, including contributions to the Florida Golf Course BMP Certification program (**38 events**)
- Conducted hands-on site visits with site-specific recommendations for habitat enhancement (wildflowers, nesting structures, littoral zones) (**81 site visits**)
- **Fostered collaboration** with golf industry partners to promote adoption of science-based BMPs
- Integrated applied research, environmental education and field consultation to support **on-course implementation**
- Served as an **Audubon International (ACSP) auditor**, guiding courses through certification and recertification

RESULTS

- Reached **1,100+** golf and landscape professionals through workshops, trainings and consultations
- Facilitated implementation of **wildflower plantings, nesting structures, and littoral zone enhancements** across participating courses
- Increased **knowledge and adoption of science-based conservation practices** within managed golf course landscapes
- Supported **8 Florida golf courses** in achieving Audubon International (ACSP) certification since 2020
- Invited to present two **national webinars** for the Golf Course Superintendents Association of America (GCSAA)
- Received national recognition with a National Association of Agricultural Agent's **2023 Search for Excellence Award**



1. Bluebird nesting box establishment, 2. On course monarch habitat signage, 3. Butterfly milkweed, *Asclepias tuberosa*, 4. 'Ice Cream' beach sunflower, *Heliothis debilis*, 5. Performing an Audubon International recertification audit, 6. Littoral zone pond enhancements. Photos by Bonnie C. Wells, DPM

IMPACT

Over five years, this ongoing Extension program has transformed golf course out-of-play areas into valuable habitat—enhancing Florida's natural resources and biodiversity, strengthening superintendent stewardship, and delivering ecological and community benefits within increasingly urbanized landscapes.