



CHELONIAN
ADVISORY GROUP



TURTLE SURVIVAL
— **ALLIANCE** —

Chelonian Biology, Conservation, and Management Course

**Sponsored by the Association of
Zoos & Aquariums (AZA)
Chelonian Advisory Group**

in conjunction with the

Turtle Survival Alliance (TSA)

September 1-7, 2024

Location: The TSA's **Turtle Survival Center (TSC)**, Cross, South Carolina.

Contact: Cris Hagen (chagen@turtlesurvival.org)

Course description: This hands-on learning experience focuses on basic biology and global conservation status of chelonians, the latest in husbandry and reproductive techniques, enclosure and facility design concepts, integration of captive management plans with conservation strategies and effective conservation messaging. Participants will learn not only about chelonian husbandry, but also how to connect with conservation projects, breeding program management, enrichment basics, chelonian health fundamentals, and more to improve chelonian management at their institutions and impact chelonians globally. Under guidance of the AZA Chelonian Advisory Group (ChAG), the Chelonian Biology, Conservation, and Management Course provides knowledge about chelonians and skills for managing these species in captivity that are essential for anyone working directly with chelonians in a zoo, aquarium, conservation, or research settings.

Tuition Costs: \$900 per participant.

The registration fee above covers tuition, lunches, and snacks for each day of the course. Other expenses to expect that are not covered include, travel to and from South Carolina, accommodations, and other meals. We will provide two dinners - an icebreaker and final day cookout at the TSC (vegetarian and vegan options will be available); other dinners will be on your own. There are two restaurants close to the TSC.

How to Register: Interested participants must submit a 1-page (maximum) letter by **June 1, 2024**, detailing your current occupation and describing why you want to attend the course, your prior experience with chelonians, career goals as they relate to chelonians, and what you expect to gain from the course. Letters should be submitted electronically to Cris Hagen.

Priority will be given to those from AZA and Zoological Association of America (ZAA) affiliated institutions. Others will be considered on a case-by-case basis. The course will be limited to 16 people and applicants who are selected will be notified by email and provided registration and payment instructions.

Travel and Accommodations: Charleston International Airport (CHS) is the closest airport. Participants should plan to arrive between 12 PM and 5 PM on September 1, 2024.

We will have a block of rooms reserved at **Blacks Camp**, 1370 Blacks Camp Rd, Cross, SC 29436, Cross, SC 29436; Phone 843-753-2231, just 2 miles from the TSC. It will be the participant's responsibility to make their own room reservation. Due to the remote location of the TSC and distance from the Charleston airport, we will run two shuttles on September 1, 2024 from the airport to Blacks Camp. However, for improved mobility during your stay, some participants are encouraged to rent a car. Staff will pick up participants at Blacks Camp every morning if it is needed. Participants can choose to stay at other accommodations but will need their own transportation to get to and from the TSC. The closest towns with a variety of lodging and restaurants options include Santee, Moncks Corner, Goose Creek, and Summerville, a 25-40 minute drive from the TSC.

Curriculum Outline: *Topics and instructors are evolving and subject to change.

	Section	Topics	Lab	Instructors
Day 1	Ice Breaker (evening)	Meet and Greet	Dinner: Lowcountry Boil or BBQ (veg options)	
Day 2	What is a Turtle?	<ul style="list-style-type: none"> > Evolution > Zoogeography > Diversity > Anatomy > Physiology 	<ul style="list-style-type: none"> > Identification and review of living families > Handling/restraint 	<ul style="list-style-type: none"> > Dr. Kurt Buhlmann² > Dr. Peter Paul van Dijk³ > Cris Hagen¹ > Dave Collins^{1,8} > Bill Hughes⁷
Day 3	Husbandry	<ul style="list-style-type: none"> > Habitat Design > Temperature > Habitat Quality > Water Quality > Identification and marking 	<ul style="list-style-type: none"> > Enclosure design (indoor and outdoor) > Filtration > Water chemistry > ID/marking techniques 	<ul style="list-style-type: none"> > Michael Ogle⁴ > Clinton Doak¹ > Cris Hagen¹ > Bill Hughes⁷
Day 4	Husbandry, Diet and Behavior	<ul style="list-style-type: none"> > Diet and Nutrition > Social structure and stress > Brumation > Welfare and Enrichment 	<ul style="list-style-type: none"> > Diet prep > Turtle pudding > Invertebrate culturing > Browse > Hibernacula > Enrichment 	<ul style="list-style-type: none"> > Clinton Doak¹ > Michael Ogle⁴ > Cris Hagen¹ > Bill Hughes⁷
Day 5	Reproduction and Veterinary Management	<ul style="list-style-type: none"> > Sexual dimorphism > Breeding encounters > Egg detection > Nest sites and egg laying 	<ul style="list-style-type: none"> > Sexing > Egg incubation > Transport > Shipping 	<ul style="list-style-type: none"> > Dr. Peter Paul van Dijk³ > Dr. Steve

	Section	Topics	Lab	Instructors
		<ul style="list-style-type: none"> > Incubation > Diapause > Juvenile husbandry > Veterinary topics: <ol style="list-style-type: none"> 1. Husbandry critical issues <ol style="list-style-type: none"> a. Water quality and disease 2. Diseases of interest <ol style="list-style-type: none"> a. "Shell" disease b. Amoeba c. TINC d. Fungal diseases e. Mycoplasma 3. Reproduction 		<ul style="list-style-type: none"> Platt⁵ > Clinton Doak¹ > Cris Hagen¹ > Bill Hughes⁷ > Carol Alvarez¹ > Dr. Charlie Innis, DVM⁶ > Dr. Bonnie Raphael, DVM⁵
Day 6	Field Research and Conservation Field Research and Conservation (continued)	<ul style="list-style-type: none"> > Research goals > Data collection > Trapping techniques > Mark-recapture techniques > Radio-telemetry > Threats and exploitation > Regulation > IUCN Red List ranking > Role of turtle conservation organizations > <i>In-situ vs Ex-situ</i> Management > Conservation breeding, assurance colonies and reintroduction > AZA SSP Program > AZA SAFE American Turtle Program 	<ul style="list-style-type: none"> > Trapping techniques > Radio-telemetry <p style="text-align: center;">Dinner: TBD</p>	<ul style="list-style-type: none"> > Dr. Kurt² Buhlmann > Dr. Peter Paul van Dijk³ > Dr. Steve Platt⁵ > Michael Ogle⁴ > Dave Collins^{1,8} > Bill Hughes⁷
Day 7	Field Trip (Optional)	Options: SC Aquarium, Riverbanks Zoo, Beidler Forest		

¹Turtle Survival Alliance

²University of Georgia/Savannah River Ecology Laboratory

³Re: Wild

⁴Zoo Knoxville

⁵Wildlife Conservation Society

⁶New England Aquarium

⁷Tennessee Aquarium

⁸AZA SAFE American Turtle Program