



Carolina Blue Stewards

Youth Water Quality Monitoring Program
Introductory Packet

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Cara Schildtknecht
Waccamaw RIVERKEEPER®
Program of Winyah Rivers Alliance
301 Allied Drive
PO Box 554
Conway, SC 29526
(843) 349-4007
riverkeeper@winyahrivers.org

Program Description




Carolina Blue Stewards is a youth water monitoring program based on the EarthEcho™ Water Challenge (formerly named World Water Monitoring Challenge), an international education and outreach program building public awareness of and involvement in protecting water resources around the world by engaging local citizens in basic monitoring of their local waterbodies (e.g., pond, stream, river). The purpose of the program is to educate students about common indicators of water health, learn science in a fun and interactive way, and become better stewards of our local water resources!

Getting Started

Carolina Blue Stewards is open to youth teams (school groups, classes, after-school programs, clubs, or other youth-oriented education groups). Interested teams will begin by receiving a one-hour mandatory introductory lesson by a Waccamaw Riverkeeper educator which includes a hands-on water testing activity. Teams must then submit a short application. Upon acceptance into the program, teams will receive one free water quality monitoring classroom kit to begin accruing activity points through a variety of water monitoring, data reporting, and additional environmental education activities. Based on the point system (see Activity Point Rubric on page 3), teams will earn their place in our special program tiers named after species native to the Waccamaw River watershed. Each tier has specific requirements, minimum point accruals, and benefits. When reviewing the tier chart on page 2, please note the definitions of the following terms:

- **Water website:** The EarthEcho™ Water Challenge's international website for entering all water monitoring data (<http://www.worldwatermonitoringday.org/>).
- **Dataset:** This refers to the number of monitoring activities conducted. The more monitoring activities and/or waterbodies tested = more datasets!
- **Monitoring kit:** The “Basic” EarthEcho™ Water Challenge Test Kit (includes 1 set of hardware and reagents to conduct up to 50 rounds of testing). More details on kit contents are provided at: <http://www.worldwatermonitoringday.org/order-kits/basic-test-kit>
- **Reagents:** The tablets to test pH and dissolved oxygen.
- **Sampling apparatus:** Equipment (i.e., bucket & pole) for easy water sample collection.

Participation Tiers

<p style="text-align: center;">Tier 1: Bluegill</p>  <p style="text-align: center;">Point Criteria: 100</p>	<p style="text-align: center;">Tier 2: Yellowbelly</p>  <p style="text-align: center;">Point Criteria: 200</p>	<p style="text-align: center;">Tier 3: Osprey</p>  <p style="text-align: center;">Point Criteria: 300</p>
<p style="text-align: center;">REQUIREMENTS</p> <p>Training & Setup</p> <ul style="list-style-type: none"> • Introductory lesson • Register school group on water website • Identify which water body to monitor <p>Program Activities</p> <ul style="list-style-type: none"> • Must collect at least 2 water monitoring datasets per year and report the data on the water website. • *Complete any of the additional activities to reach the required 100 points. 	<p style="text-align: center;">REQUIREMENTS</p> <p>Training & Setup</p> <ul style="list-style-type: none"> • Introductory lesson • Register school group on water website • Identify which water body to monitor <p>Program Activities</p> <ul style="list-style-type: none"> • Must collect at least 4 water monitoring datasets per year and report the data on the water website. • *Complete any of the additional activities to reach the required 200 points. 	<p style="text-align: center;">REQUIREMENTS</p> <p>Training & Setup</p> <ul style="list-style-type: none"> • Introductory lesson • Register school group on water website • Identify which water body to monitor <p>Program Activities</p> <ul style="list-style-type: none"> • Must collect at least 8 water monitoring datasets per year and report the data on the water website. • *Complete any of the additional activities to reach the required 300 points.
<p style="text-align: center;">BENEFITS</p> <ul style="list-style-type: none"> • Participant certificate • 1st bonus monitoring kit • School team listed on WRK website • School announced at annual water resources conference 	<p style="text-align: center;">BENEFITS</p> <ul style="list-style-type: none"> • Tier 1 (Bluegill) benefits <p style="text-align: center;">AND...</p> <ul style="list-style-type: none"> • 2nd bonus monitoring kit • More reagents to cover 50 additional samples • Cool student swag/prizes • Educational teacher resources (e.g., books) • Feature in WRK newsletter 	<p style="text-align: center;">BENEFITS</p> <ul style="list-style-type: none"> • Tier 2 (Yellowbelly) benefits <p style="text-align: center;">AND...</p> <ul style="list-style-type: none"> • 3rd bonus monitoring kit • More reagents to cover 50 additional samples • Team recognized via local media outlet • 1 sampling apparatus • 1 free rain gauge

*Additional activities listed on the Activity Point Rubric (pg. 3)

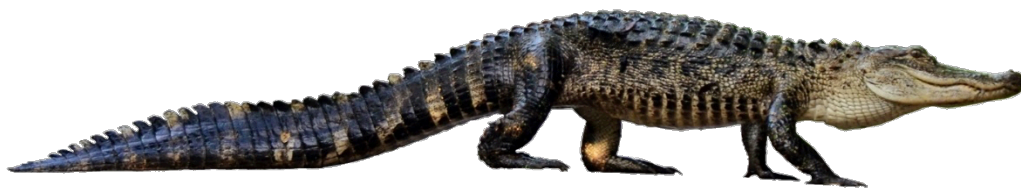
Activity Point Rubric

Teams are encouraged to choose a variety of activities to compete for Bluegill, Yellowbelly, or Osprey tier status!

Point Value Per Activity	Activity Description Conducted by Students
10	Collect one dataset
5	Enter one dataset on website
10	Submit written story about water monitoring efforts to Waccamaw Riverkeeper to share through newsletter and EarthEcho
20	Develop presentation about water monitoring efforts and share with class peers
30	Develop presentation about water monitoring efforts and share with school wide community
40	Develop presentation or display about water monitoring efforts at public event (e.g., School Earth Day, Waccamaw Conference, etc.)
50	Develop presentation or display about water monitoring efforts to local government officials
5	Post to social media (e.g., school FB page) and tag with #MonitorWater #ProtectWinyahRivers and @EarthEcho @WinyahRiversAlliance
50	On/around World Water Day (March 22 nd), organize a litter cleanup, school challenge (e.g., plastic-free week, water conservation awareness week, etc.), or a school-wide pledge
50	On/around Earth Day (April 22 nd), organize a litter cleanup, school challenge (e.g., plastic-free week, water conservation awareness week, etc.), or a school-wide pledge
5	Send photos of your activities to Waccamaw Riverkeeper to share on Winyah Rivers social media and website
5	Share water-related current events with peers (e.g., news article, science journal article/report)
20	Create an art project communicating the importance of clean water
15	Write a poem or creative short story about the importance of clean water
50	Create a video communicating the importance of clean water. Get creative - Sing! Rap! Dance! Have fun with it ☺

*Point values are based on time, effort, and resources. See the FAQs on page 4 for more details.

*Activities may be completed multiple times to accrue additional points.



Gold Star Gator

Each year, the Waccamaw RIVERKEEPER® will select one team to receive the outstanding Gold Star Gator achievement award. This honor will be given to the group that has most successfully met the unique water monitoring challenge, which will be announced at the beginning of each new academic year. Participation in this additional activity is optional, but highly encouraged! Teams will battle it out for the coveted Gold Star Gator trophy, which is specially reserved for the winning team. This trophy will remain with the group for one academic year until it is time to pass it on to the winners of the following year's challenge. Who's it going to be? Challenge focal areas will rotate between the three key S categories: Science, Stewardship, and Silly!

The 2019-2020 Gold Star Gator challenge focus is...**Science!**

Think you have what it takes to be a Gold Star Gator? This school year teams will compete to see who can go above and beyond with a creative activity that relates to their water quality monitoring efforts. Only the best science activity will receive the prestigious Gold Star Gator!

Frequently Asked Questions

How do we get started?

Schedule your one-time, commitment-free classroom presentation and interactive water quality monitoring activity today! Please contact Cara Schildtknecht, Waccamaw Riverkeeper, to schedule:

Riverkeeper@winyahivers.org

843-349-4007

Following the presentation, interested teams must complete a program application. Once approved, we will provide you one free water monitoring kit to get started!

What kind of waterbodies can we test?

The test kits can be used to monitor fresh, brackish, and saline waterbodies. Some examples include stormwater ponds, rivers, streams, estuaries, and ocean. Be sure to choose a waterbody that is easily and safely accessible. Please do not hesitate to contact us if you need further assistance.

What if I can't take my class to the waterbody?

No problem! Students are not required to visit the sampling site. Teachers can simply bring water samples to test in the classroom.

Do our points roll over into the next school year?

Points are accrued on an annual basis. We want the students currently participating in the program receive the benefits of all their hard work!

Who is responsible for tracking our points?

You are! We can't be with you in the classroom everyday – though we wish we could! We are putting our trust in you to track your points honestly and diligently. Complete the Activity Point Chart provided to you.

When do we submit our points?

We encourage you to track your points throughout the school year. Once you reach enough points for a particular tier, please submit your completed Activity Point Chart for us to review. We will check-in with you at the end of each fall and spring semester.

When do we receive my benefits?

As soon as you accrue enough points for a particular tier, simply submit your completed Activity Point Chart and we will deliver your well-deserved benefits!

What if our class completes something super amazing on the activity list and we think that it is worth more than the assigned point value?

We encourage classes to go above and beyond! Point values are based on the amount of time, effort, and resources anticipated for participants. However, we realize that not all teams are created equal. Please contact us to discuss your fabulous efforts in more detail.

What if my students do something over-the-moon fantastic that is not on the activity list? Can they still get points?

Absolutely! We want your students to be creative. Please contact us with your activity details and we can discuss potential point values.

Who do I contact with all my other questions?

Please contact Cara Schiltdknecht, Waccamaw Riverkeeper, with any additional questions!

riverkeeper@winyahrivers.org or (843) 349-4007

The Waccamaw RIVERKEEPER® Program of the Winyah Rivers Alliance is a 501(c)(3) not for profit organization with the mission to protect, preserve, monitor and revitalize the health of the lands and waters of the greater Winyah Bay watershed. As a member of WATERKEEPER® ALLIANCE and the Waterkeeper movement, our vision is for fishable, swimmable, drinkable water for our families and our future. For more information, please visit www.winyahrivers.org.

