

# NEW MEMBER HANDBOOK



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# About The Club's History

We all owe a great deal to Bill Killhour, a retired Philadelphia businessman and world-champion rower who founded our Club over 20 years ago. Like most of us, Bill came to rowing after he turned 50. But unlike any of us, he went on to dominate his age group at the international Masters level. Thanks to Dr. Lu Strayer, former team doctor for the U.S. Men's Olympic Rowing Team and current PRC board member, for his personal reminiscence about this remarkable man.

“Born in 1925, Bill was in business in Philadelphia when his son Gilson began rowing in a New England secondary school. He became fascinated with rowing, gave up squash and in 1975 joined a rowing club on Boathouse Row.

Philadelphia was the capital of rowing in the USA at that time. He must have rowed with Joe Burke as he rowed here in classic Joe Burke style. He also must have been a quick study as in 1985 he went to Europe to his first of many FISA (the governing body of world rowing) World Masters Championships. He won a total of 39 Gold medals up through 1994. The last 4 were after a total hip replacement!

He and Josie, his wife, moved to HHI in 1986 and started the Palmetto Rowing Club the next year. About that time, I met Bill at an annual meeting of the US Rowing Association, (later USRowing).

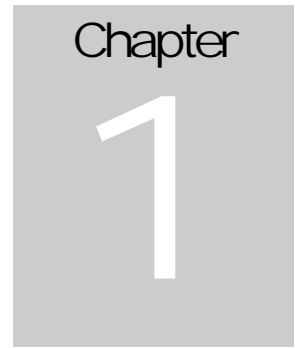
In 1989 he, with Walt Graver, helped to develop what at that time was South Carolina's only high school rowing program. The Hilton Head High School crew became a varsity sport in 1997.

In addition he developed and promoted a fall regatta, The Head of The Broad, which was a staggered 3 mile race from the Broad Creek Marina to the Old Oyster Factory. While successful, it couldn't attain an annual status because one fixed date each year would not allow for tidal variation. He also put HHI on the map as a low budget location for Spring break practice for the ice bound Eastern collegiate crews.

He was a great coach to the kids and almost the singular driving force behind the growth of the PRC as well as a force in the Town of Hilton Head Island and his Church where he sang in the choir. He died 4 December 2004 after a long, hard fight with cancer.

It was in his name that the Killhour Fund was created to fund major capital improvements such as a boathouse.”

Today, the Palmetto Rowing Club has over 40 members, split about evenly between men and women. While most of us have learned to row here on Broad Creek, we are fortunate to have a number of members who have been rowing for decades and who share their expertise with the rest of us.



## The Basics

Welcome to the Palmetto Rowing Club and the sport of rowing or sculling! This is one of the most rewarding and enjoyable of all water sports, as well as being a complete exercise and an efficient means of transportation. Since it's pretty easy to forget some of the things your instructor tells you out on the water, we have put it in writing for your reference.

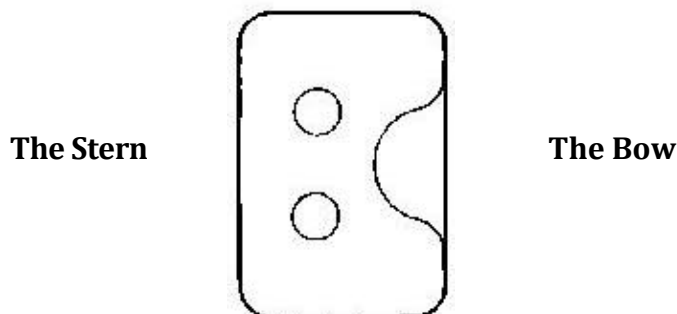
Chapter 1 will cover six broad topics of basic information:

1. Carrying the equipment
2. Getting in and out of the boat.
3. The Rowing Stroke, broken down into its four component parts
4. Putting it all together: Rowing and turning
5. Problems you may encounter and how to correct them.
6. Glossary of terms.

In Chapter 2, we will cover everything you need to remember in order to experience the incredible beauty of Broad Creek in a safe manner.

Chapter 3 is a compendium of other useful information that will enhance your enjoyment of our sport.

## CARRYING THE EQUIPMENT



Since we row sculls facing backward, one can easily become disoriented until you have had some time on the water to become accustomed to it all. A good way of determining which is the bow and which is the stern is to look at the seat. The straight edge of the seat or the edge with a bump is the stern edge. (See the diagram above).

Our boats are easy to carry. The novice class boats (those that are rigged with Oarmasters) and the intermediate class boats (Alden Stars) are heavy enough that they should always be carried by two people, one at each end. The expert class boats (Peinerts, Vespolis and WinTechs) can be handled by one person from the side, canoe-fashion, if he or she is strong enough. However, to avoid accidental damage to the boats, we recommend that you try to get another person to help with this class of boats as well. Never set any boat with a skeg on the dock as it will break off! If the skeg breaks, it will put that boat out of commission for several weeks until a replacement part can be secured and fitted.

Our oars are matched pairs that are color coded to help you determine which side of the rigging they are attached to. Near the top of the oar, just under the handle, you will find a red or green indicator. The red oar attaches to the right hand rigger and the green to the left hand rigger. This is very important since the blades are shaped and will not row properly if not placed on the correct side. Also, when attaching your oars, the thicker part of the oarlock (the part that has the oarlock pin in it) faces the bow.

The oar blades are thin and can be broken with little difficulty, so you should always carry them with the blades in front of you to decrease the possibility of hitting anything with them. Use care in putting them down and into the boat. When leaving the dock, be careful not to hit them against anything. Never put the oar handles directly on mud or oyster shells and completely rinse them off with fresh water before putting them back in the rack.

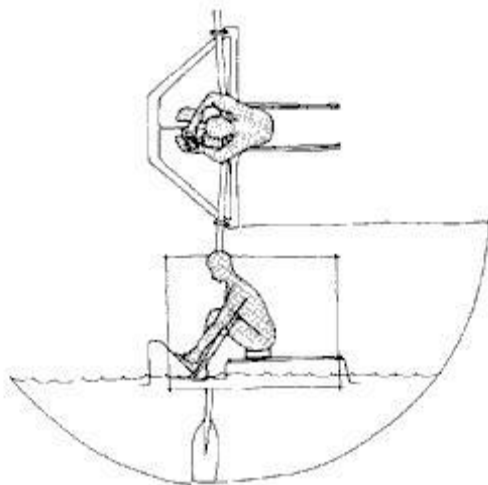
The sliding seat will stay in the boat when it is being carried upside down over short distances, but one does come off occasionally while carrying a boat down to the water. To put the seat in the boat, set the stern pair of wheels on the tracks at the bow end. (See the drawing above). Make sure that the retaining clips on the underside of the seat are going under the flange on the track, and push the seat on towards the stern.

## GETTING IN AND OUT OF THE BOAT

Once you have the boat in the water, put the oars in the locks. This is done by placing the thin part of the oar shaft near the blade into the lock, then sliding the oar out into the lock until the button contacts the lock. It is easiest to push off in a boat that is parallel to a dock or the shore. One should keep the oars relatively perpendicular to the boat while embarking or disembarking, and not try to "ship" the oars as in a fixed-seat rowboat.

To get into the boat, one should hold both oar grips with one hand, buttons out against the locks, oar blades flat, and the oars perpendicular to the boat. Place the other hand on the convenient edge of the dock, place one foot on the non-slip surface between the tracks and step in. **NEVER step anywhere other than the deck area between the seat slides.** The hulls are not designed to take a lot of weight and you will put your foot right through the fiberglass if you step in the wrong spot.

As you step in, the oars should be in front of your body (to the stern) and the seat should be behind (to the bow) so that you can sit. Once sitting down, place each foot in the shoes or under the respective loop on the foot-board and adjust the strap to be just snug. It is easy to do this if you bring both oar handles into your armpits, blades resting on the surface of the water and the dock, extend your arms over the handles and roll forward on the seat so that the oar handle is positioned between your thighs and arms.



**Position to adjust foot strap**

It is important to maintain control over both oar handles at all times, or you may tip over. The oar blades act as outriggers and prevent you from rolling over as long as you keep your hold on the grips. It is only when you let go of one of the oars or let it turn completely parallel to the boat hull that you can roll over.

Here in Hilton Head, you always put in from our dock so you will now want to reach over with your arm, holding on to both grips with the other hand, and push yourself away as strongly as possible. This may not get you far enough off the dock to begin rowing. Lean away from the dock a little, onto the

outside oar blade, and pull the inside oar carefully in towards you until you can place the blade on the edge of the dock and push away. A number of our members like to push off the end of the dock towards the County boat ramp. This will immediately put both oars in the water so that you can maneuver the boat into open water. This method is a bit tricky when the tide is running out so practice it first on an incoming tide.

To return to the dock, it is best to approach at a shallow angle, slowly. Just as the blade would hit the dock, lean away from the dock onto the outside blade. This will cause the boat to turn parallel to the dock as it comes in and will enable you to get the inside blade raised up onto the dock. You should practice this maneuver a couple of times away from the dock. If out for your first or second solo row, have your rowing partner land first so that they can pull you in with the oar once you get close enough.

## THE ROWING STROKE:

### THE CATCH, THE DRIVE, THE FINISH AND THE RECOVERY.

The whole body is involved in moving a shell through the water. Although rowing tends to look like an upper body sport, the strength of the rowing stroke comes from the legs.

As the stroke begins, the rower is coiled forward on the sliding seat, with knees bent and arms outstretched. At the **catch**, the athlete drops the oar blade vertically into the water.

At the beginning of the **drive**, the upper body position doesn't change – all the work is done by the legs. As the upper body begins to uncoil, the arms begin their work, drawing the oar blades through the water. Continuing the drive, the rowers move their hands quickly into the body, which by this time is in a slight "layback" position, requiring strong abdominal muscles.

During the **finish**, the oar handle is moved down slightly, drawing the oar blade out of the water. At the same time, the rower "feathers" the oar – turning the oar handle – so that the oar blade changes from a vertical position to a horizontal one.

The oar remains out of the water as the rower begins **recovery**, moving the hands away from the body and past the knees. The upper body follows the hands and the sliding seat moves forward only after the hands move past the knees, until, knees bent, the rower is ready for the next catch.

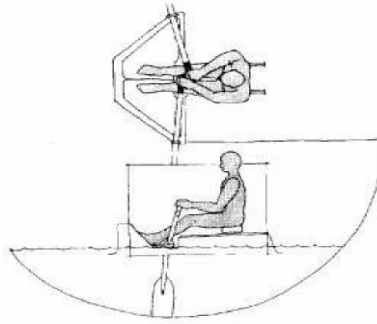
## PUTTING IT ALL TOGETHER: ROWING AND TURNING

If you have rowed a traditional rowboat, there are two elements to sculling which are probably new to you:

1. **Feathering** is the turning flat of the oar blades as you release them from the water at the end of the stroke and then turning them perpendicular again right before the catch, where you put them back in the water. Feathering makes it easier to extract the blades from the water, cuts wind resistance on the recovery, and makes it easier to row in choppy water.

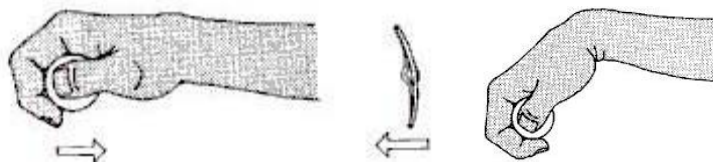
2. The use of the **sliding seat**, which enables you to use your legs to propel the boat.

Let's start with a basic rest position, the most comfortable position in which to sit when not moving. Sit squarely on the seat, feet under the straps, knees down so that the backs of the calves are touching the boat, one hand on each oar with the handles just in front of the body over the thighs, oar blades flat on the water, concave side up.



**Basic rest position**

Still sitting in the rest position, position the hands on the grips so that they would be in the proper position for the drive; the blade should be perpendicular and floating at the surface of the water, concave side towards the stern, just covered, your fingers wrapped loosely around the grip with your thumb across the end of the grip. Use the thumbs to press lightly outwards at all times so that the buttons stay in contact with the locks. Your wrist should be relatively flat. If it is particularly arched up or down, you will have trouble with the feathering and your forearm will tire quickly.

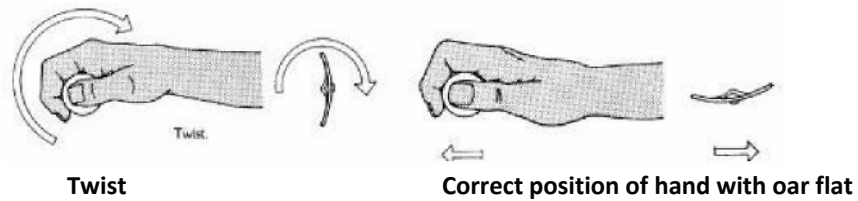


**Correct grip for drive. Note flat wrist**

**Incorrect grip. Note arched wrist**

To change the oar blade to the flat position, as you will do at the finish of each stroke, one gives a relaxed twist to the grip. Drop the wrist slightly while rolling the top of the grip towards the chest, while at the same time letting the oar shaft drop flat into the oarlock and the grip roll out more under the fingers.



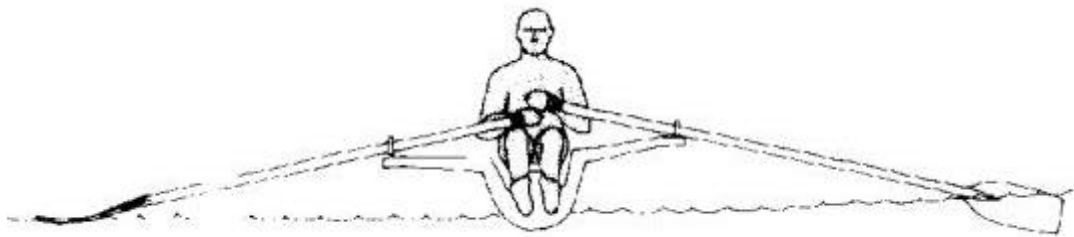


Actually, the blade does not quite go all the way flat; the front edge is slightly higher than the back edge to help keep it from digging into the water on the recovery.

To move the blade back to vertical, merely squeeze the fingers toward the palm, re-closing the grip and bringing the wrist back up to the flat position.

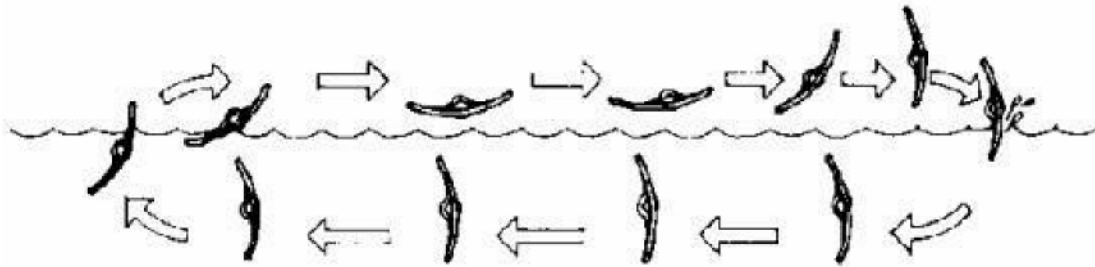
You may find it easier to determine the correct grip and hand movements for feathering by practicing for a minute or two on the shore before you step into the boat.

You should now be sitting on the water in the rest position with some idea of how to feather. We will practice a turn and feathering at the same time. This will enable us to practice feathering with one hand at a time, while learning to turn around without tipping over. To turn to port (your right as you sit in the boat) and practice with the left hand, start by slightly lowering the port grip with your right hand and leaning slightly towards the port (your right). You should look like the sketch:



In this position you can row with your left hand without fear of interference with the other hand.

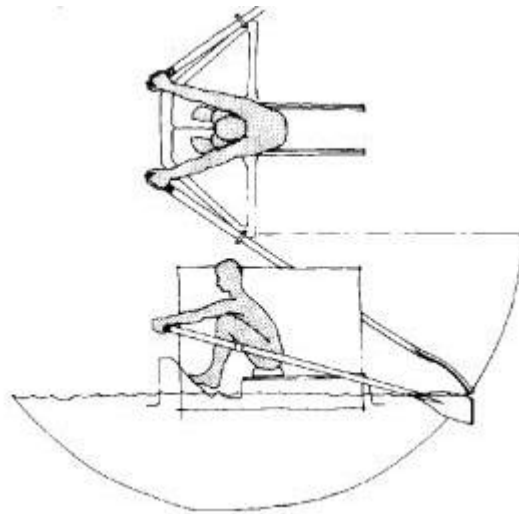
The feathering of the blade is done at the following points in the stroke: The blade is held flat and a couple of inches off the water on the recovery until just before the catch. It is returned to the vertical position in time to be placed in the water for the drive. It is held vertical through the drive (easy to do since the flat on the oar-shaft pulls into the corresponding flat surface on the oarlock). It is turned flat as it is taken out of the water. If turned too soon, while still pulling on the oar, the blade will knife deeply into the water; if turned too late it is harder to release the blade from the water. The correct path of the blade in air and water is shown in the sketch



**Note that the blade follows a rectangular path with rounded ends**

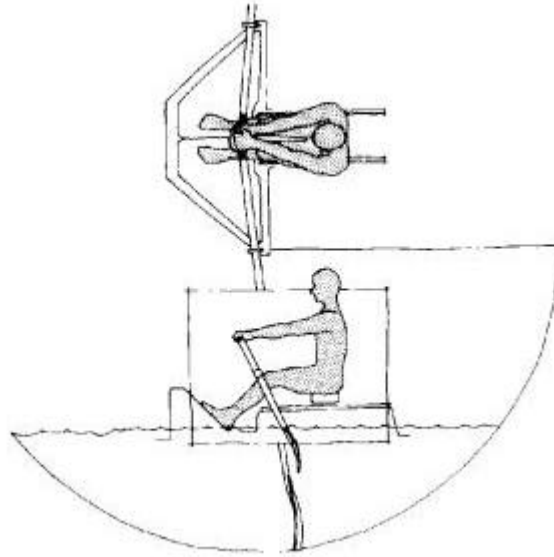
Now, to row! You will notice that the oar handles overlap in the middle of the recovery and drive. The starboard (your left as you sit in the boat,) oarlock is set slightly higher than the port and you will want to row with the left hand slightly higher than the right, so that in the middle of the stroke the starboard grip is directly over the port.

To row using the sliding seat, start at the rest position, extend the arms straight towards the stern, swing your upper body over towards the stern and then roll on the seat as far towards the stern as is comfortable. Feather the blades up towards the vertical position and place them into the water as you get to your full extension.



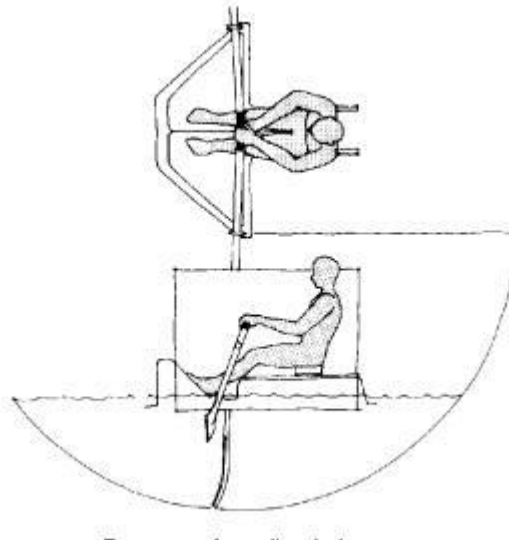
**Position at the catch or beginning of the drive**

Your knees should stay close together so that they come up either under the armpit or in front of your chest. The first half of the drive is accomplished by a push of the legs and a simultaneous swing towards the bow with the torso, keeping the arms straight.



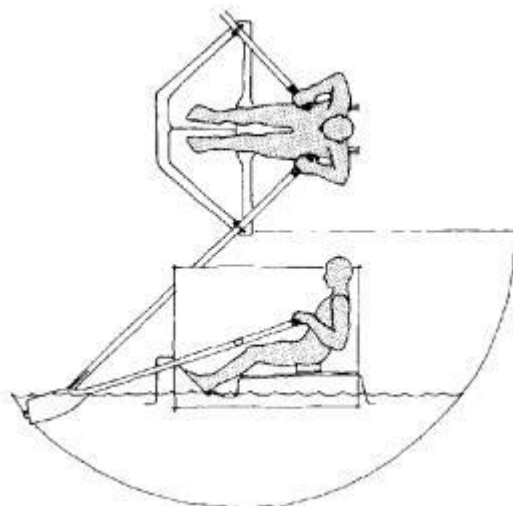
**Midway through the drive**

Only when the legs are fully extended do you begin to pull in with the arms, at the same time finishing the swing of the upper body to a position about 10 degrees past the vertical.



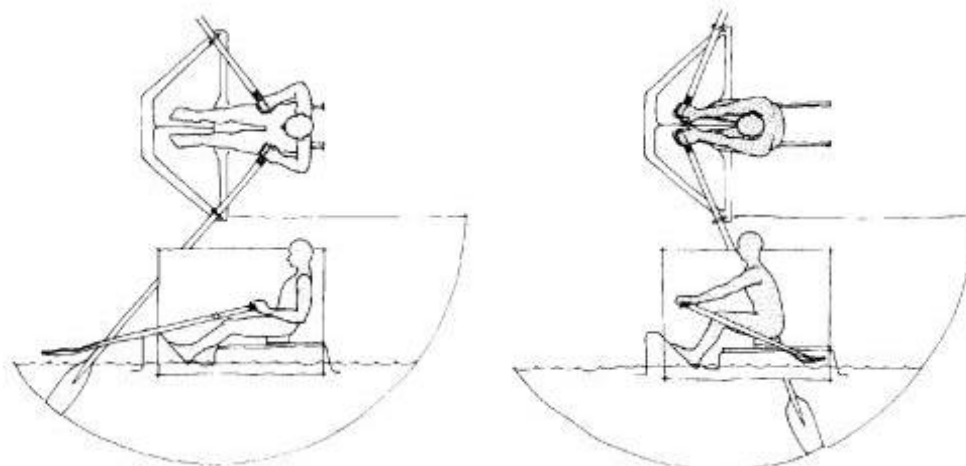
**Beginning the pull with the arms**

Your elbows should be hanging down in a relaxed position so that they will pass closely by your torso as you finish the stroke.



**Position at the finish of the stroke**

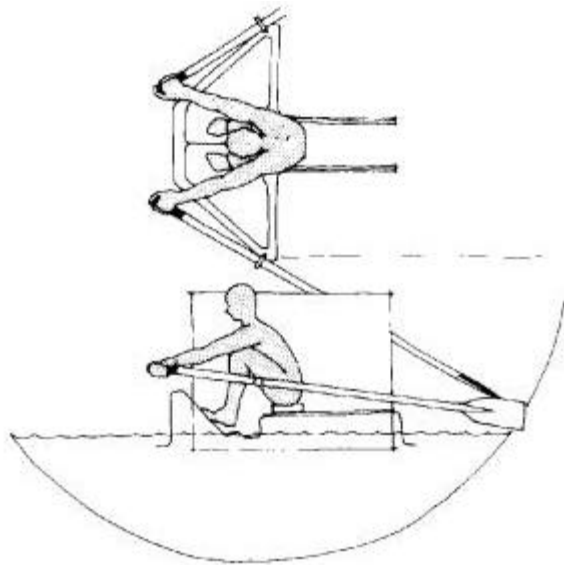
As the oars swing through so that the grips point at your sides, lightly press down on the handles and simultaneously turn the blades flat as described earlier.



**The release**

**The recovery**

Once the blades are out of the water at the finish, you accomplish the recovery by straightening your arms, remembering to keep the left hand over the right, and moving the grips toward the stern on a level path. As the arms straighten, let the upper body swing over towards the stern. Once the oar handles are past your knees, begin rolling on the slide towards the stern, keeping the arms straight and the upper body reaching for the next catch. Just before getting to your full reach, turn the blades to vertical and prepare to lightly let them drop into the water. As you stop rolling on the seat and with the blades in, begin pushing off for the next drive.



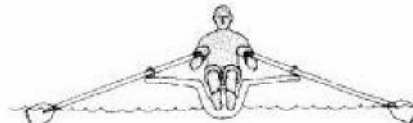
**Position at the end of the recovery.**

It may be easier to balance at first if you let the oar blades just touch the water on the recovery, acting as outriggers. However, you will soon find that you can row more smoothly, especially in choppy water, if you keep them a couple of inches off the surface.

**From the stern, two points to note:**



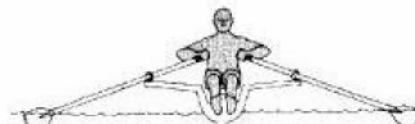
**Correct, knees close together at the catch.**



**Correct, elbows close to the sides at the finish.**



**Incorrect, knees splayed.**



**Incorrect, elbows out.**

Because they are built for speed, rowing boats are narrow and can tip over easily. A basic truism of rowing is that everyone, including experienced rowers, will tip a boat from time to time. The good thing is that all rowing boats will stay afloat even when the cockpit is full of water. So, if you should capsize, do not leave the boat but rather stay with it and use the boat and/or the oars as a flotation device. We will teach you the proper procedure to get back into the boat when this happens.

## PROBLEMS YOU MAY ENCOUNTER AND HOW TO CORRECT THEM

### **1. It is hard to release the blades from the water at the finish.**

You may have the blade too deep in the water (it should be just covered) or you may be feathering it too soon or too late. Turn the blade flat just as you release it from the water.

### **2. The oar handles hit my knees on the recovery.**

You should keep your legs extended and knees down until your arms are fully extended and your upper body has swung over towards the stern, at which point the handles are then over your shins, clear of your knees and you can begin to roll the seat towards the stern.

Or, you may be trying to keep the oar blades too high off the water with the handles too low. If this is the case, try keeping the oar blades only a couple of inches off the water with your hands a little higher over the knees.

### **3. My forearms get tired and my wrist is sore.**

Ah, this is a case of the dreaded Fire Paw syndrome! Try a more relaxed grip on the oar handle.

Or, be sure your wrist is flat as you pull the oar through the water.

### **4. The seat binds and doesn't roll well**

Be sure you are sitting in the middle of the seat and not twisting as you roll back and forth, or the seat might need some lubricant.

### **5. It is hard to keep the blades from diving deep on the drive.**

You are probably not turning the oar-blade all the way to vertical before putting it in the water at the catch, be sure your grip on the oar handle is relaxed and be sure the oar blade is vertical before catching the water, and relax your grip as you pull so that the flat of the oar shaft can align itself with the flat of the oarlock, which keeps the oar blade in the proper position.

### **6. It is hard to keep the boat level while rowing.**

Be sure to keep your body balanced over the center of the boat.

Work on releasing the water smoothly at the finish so that you start the recovery on an even keel.

Be sure to keep the oar handles moving on a constant level moving the handles up and down affects the balance of the boat.

## GLOSSARY OF TERMS

**Blade:** The flat part of the oar that goes into the water

**Bow:** The front of the boat

**Button:** Plastic collar on the oar shaft, located over the sleeve, and locates the oar against the oarlock when in use

**Catch:** The point in the stroke at which the blades are put into the water at the beginning of the drive, also the end of the recovery

**Drive:** That portion of the stroke when the blades are in the water and the person is pulling on the oar handles

**Feathering:** The act of twisting the oar to position the blade vertically for the drive and horizontally for the recovery

**Grips:** Rubber caps on the inboard (handle) end of the oars

**Oarlock:** Plastic piece that holds the oar and pivots, located on the end of the rigger

**Pin:** Bolt that forms the pivot for the oarlock

**Port:** Left side of the boat facing forward, right side as you sit to row, often marked red.

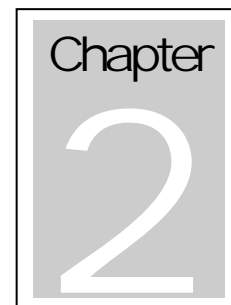
**Recovery:** That part of the stroke when the blades are out of the water and the person is moving towards the next drive

**Release:** That point at which the oars are taken out of the water at the end of the drive, also the beginning of the recovery

**Rigger:** Arm extending out from the side of the boat, it holds the pin and oarlock

**Sculls:** Another name for the oars, sculling is also another name for the act of rowing  
**Sleeve:** Plastic tube on the oar, under the button, that protects against wear in the oarlock  
**Starboard:** Right side of the boat facing forward, left side as you sit to row, often marked green  
**Stern:** Back of the boat





## Sculling Safety in Broad Creek

Knowledge and planning are the best tools for rowing safety. Though rowing on Broad Creek is very safe, one can get into trouble if you elect to disregard your safety training. In such instances, the biggest threats to safety in the act of rowing are drowning, hypothermia, and collision from other craft.

Knowledge is gained through experience, and the experience a good rower should have in order to safely row is:

1. Never rowing by yourself. Always row at times when at least one other rower is on the water. And use the log book to sign in and out.
2. The ability to handle your shell expertly (backing, stopping, rowing, turning)
3. The ability to swim in open water confidently
4. Full immersion/swimming in cold water (~ 50 degrees) (without wetsuit)
5. Successful demonstration of the “Get back in the boat” recovery technique.
6. Knowing where you are positioned at all times while keeping to the proper outbound/inbound rowing pattern.
7. Knowing where all oyster reefs and mud flats are located so that you can avoid running aground and damaging the boat.

There is one overriding aspect to consider for safe rowing as a member of the Palmetto Rowing Club: Know your limits. One person’s risk analysis will not be the same as another’s. So know your own personal limits and don’t be enticed by another member to go beyond them.

So what “limits” should I consider? Here are a few:

**Know your swimming limits.** Do not row by yourself on a course on the Creek that would put you in a spot that you could not return to safety given equipment failure. In fact, all Novice and Intermediate rowers should be within hailing distance of another rower at all times. Fortunately, Broad Creek is only a few hundred yards wide at its widest point so you should be able to swim the boat to shore if necessary.

Hypothermia is not a danger until the winter months when the air and water temperatures drop. The Club will

notify all members by email if water temperatures fall below 50 degrees. When this happens, rowing is prohibited for all members until further notice. When rowing is permitted, we recommend that you follow the “Rule of 100” where the combination of air temp and water temp is greater than 100. So if the water temperature is 50 degrees, row only when the air temp is at least 50 degrees.

**Know your endurance limits.** A row to the Palmetto Bay Marina and back is a six mile roundtrip. This is a distance that many of our more experienced rowers routinely row. It is not recommended, however, for Novice and freshly-minted Intermediate rowers. Rowing a trainer or an Intermediate boat like an Alden Star will take a lot more energy than one of advanced boats will. If you attempt to row one of these boats past your endurance limit, you will likely “run out of gas” before you get back to the dock! Members in these categories should become very adept at rowing to Shelter Cove Harbor and back, before extending the length of their session to Long Cove Marina and beyond. Remember, it’s as much about your conditioning level as it is about your rowing skills.

**Know your time limits.** If you have a defined time limit for your rowing session, it is advisable to wear an inexpensive waterproof watch to help you gauge your outbound progress. Keep in mind that you will be rowing against the tide in one direction and with it in the other. If you want to be on the water for an hour, for example and start out rowing with the tide, you may want to turn around 20-25 minutes into your session as it will most definitely take you longer to row back against the tide. If there is much of a wind, that can add a few minutes to your row as well.

**Very important:** Plan your session to allow time to haul your boat out of the water, place it on a boat sling, and clean and dry it before putting it back on the rack. If you are not strong enough to pick up and carry the boat safely by yourself, then you need to plan to return to the dock with a rowing partner so that you can help each other put your boats away properly.

## PREPARING FOR AN OUTING

1. Log in and out by signing the log book. Note the boat you are taking out as well.
2. Follow the Club's mandatory traffic flow: Outbound rowers will row on the far side of the main channel (the part that parallels US 278). Inbound rowers will use the near side of the channel (the side the boathouse is on.)
3. Be aware of temps and other weather conditions, the 100 degree rule should apply. Check the tide table on the bulletin board.
4. Assume that ferries, fishing boats, speed boats and jet skis don't see you. Try to avoid their wakes. If not possible, turn your boat **parallel** to the wake, stop rowing, feather your oars and lay the blades flat on the water. Center your body over the boat and ride out the waves.
5. Plan your trip in advance and know when you should begin your return trip.
6. Report any damage to the boat or boat house by writing it in the Remarks section of the rowing log.

## Navigating Tips

Rowing on Broad Creek will expose you to a variety of conditions that you will need to navigate as the tides change. Chief among these are the numerous oyster reefs and mud flats that line the course, as well as the occasional abandoned crab pot. During an average tide, the water level in the Creek will change by 6-7 feet over a six hour period. During the spring and fall tides, the swing can be as much as 10 feet! Reefs and sand bars that may have been well below the surface when you began your row, may be lurking just below the surface, ready to damage your shell, when you return. So it is imperative that each rower maintain good situational awareness at all times. As you gain experience on the course, make note of the locations of these sub-surface hazards so that you can avoid hitting them.



Oyster reef 2 hours past low tide



Crab pots can tear a big hole in your shell

### THE “GET BACK IN THE BOAT” DRILL

1. Right your boat if it has flipped over, put scull handles together with both blades flat on the water perpendicular to the hull.



2. Grasp both grips with one hand and push the seat to its stern-most stops. With your other hand, pull yourself across boat on top of seat, you want to get to a position where you are laying straddled across the boat, or turn sideways so you get your butt on top.



Keep hold of those handles and keep oars ON the water as much as possible.

3. Kicking vigorously, use your non-handle hand to pull yourself up enough to twist to get your butt on or near the center of the boat and slide a leg across.





4. Scoot forward so you can get your scull handles in your lap, which frees your hands to lift yourself onto your seat. Make small, slow movements during this process so that the oar handles will stay put. Otherwise, you are going to become intimately acquainted with the water again!



5. If you are unable to get back into your boat, or breakage makes it not helpful to try and row the boat, you can swim your boat by simply pushing it ahead of you while you swim.



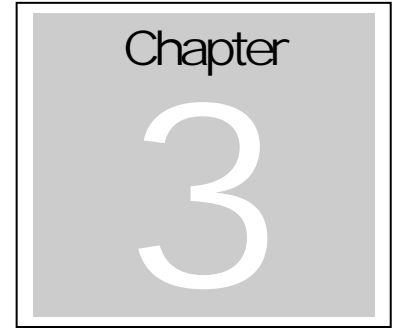
6. Make sure the oars are free to trail the boat as you push it, and you will have best success swimming the boat from the stern. If tired, you can hang on the stern and kick.



7. An excellent method of boat recovery if you have breakage and can't row and the swim is too far is to climb up on the stern and paddle the single like a surfboard. The Aldens are easy to paddle like this, the advanced singles are more difficult. If you find difficulty staying on the stern deck while you paddle, spread your legs out.







## More Useful Stuff

### THE PALMETTO ROWING CLUB WEBSITE

The Club has a very useful “Members Only” section of its website where you can access the community calendar to find times when other members will be rowing, check current weather conditions on Broad Creek, view the current Club roster, or review a variety of training documents and videos. Go to [www.palmettorowingclub.com](http://www.palmettorowingclub.com)

The Club’s website has two sections, the public side that is open to anyone and a special, Members Only section that will give you access to information that will help you get the most out of your rowing experience.

## Eleven Insights to the Sport of Rowing

1. **Rowing is a total body workout.** Rowing only looks like an upper body sport. Although upper body strength is important, the strength of the rowing stroke comes from the legs. Rowing is one of the few athletic activities that involves all of the body's major muscle groups. It is a great aerobic workout, in the same vein as cross-country skiing, and is a low-impact sport on the joints.
2. **Serious rowers are probably the world's best athletes.** Rowing looks graceful, elegant and sometimes effortless when it is done well. Don't be fooled. Rowers haven't been called the world's most physically fit athletes for nothing. The sport can demand endurance, strength, balance, mental discipline, and an ability to continue on when your body is demanding that you stop.
3. **Sweeping (like a broom) and Sculling (with a "c").** There are two basic types of rowing: sweep rowing and sculling. In sweep rowing, athletes hold one oar with both hands. In sculling, the athletes have two oars, one in each hand.
4. **The boat.** Although spectators will see hundreds of different races at a rowing event, there are only six basic boat configurations. Sweep rowers come in pairs (2s), fours (4s) and eights (8s). Scullers row in singles (1x), doubles (2x) and quads (4x). Sweep rowers may or may not carry a coxswain (cox-n), the person who steers the boat and serves as the on-the-water coach. All eights have coxswains, but pairs and fours may or may not. In all sculling boats and sweep boats without coxswains, a rower steers the boat by using a rudder moved with the foot.
5. **The categories.** Rowers are categorized by sex, age and weight. Events are offered for men and women, as well as for mixed crews containing an equal number of men and women. There are junior events for rowers 18 or under or who spent the previous year in high school, and there are masters events for rowers 27 and older. There are two weight categories: lightweight and open weight.
6. **The equipment.** Today's rowing boats are called shells, and they're made of lightweight fiberglass or carbon fiber. The smallest boat on the water is the single scull, which is only 27-30 feet long, a foot wide and approximately 30 pounds. Eights are the largest boats at 60 feet and a little over 200 pounds. Rowers use oars to propel their shells. Sweep oars are longer than sculling oars, typically with carbon fiber handles and rubber grips (although some sweepers still prefer wooden handles). Sculling oars are almost never wood.
7. **The crew.** Sweepers are identified by their position in the boat. The athlete sitting in the bow, the part of the boat that crosses the finish line first, is the bow seat or No. 1 seat. The next person in is No. 2, then No. 3 and so on. The rower closest to the stern that crosses the finish line last is known as the stroke. The stroke of the boat must be a strong rower with excellent technique, as the stroke is the person who sets the rhythm of the boat for the rest of the rowers.
8. **SPM not MPH.** Rowers speak in terms of strokes per minute (SPM), literally the number of strokes the rower completes in a minute's time. The stroke rate at the start is high – 38-45, even into the 50s for an eight – and then "settles" to a race cadence typically in the 30s. Crews sprint to the finish, taking the rate up once again. Crews may call for a "Power 10" during the race – a demand for the crew's most intense 10 strokes.
9. **Race watching.** The crew that's making it look easy is most likely the one doing the best job. When watching a race, look for a continuous, fluid motion from the rowers; synchronization in the boat; clean

catches, i.e. oars entering the water with little splash; and the boat with the most consistent speed.

10. **Teamwork is number one.** Rowing isn't a great sport for athletes looking for MVP status. It is, however, teamwork's best teacher. The athlete trying to stand out in an eight will only make the boat slower. The crew made up of individuals willing to sacrifice their personal goals for the team will be on the medal stand together. Winning teammates successfully match their desire, talent and bladework with one another.
11. **Rowing is the ultimate walk-on sport.** (Our personal favorite!) Palmetto Rowing Club is a membership-driven organization that serves rowers of every age and ability from the beginner to the experienced, from teenagers to septuagenarians. In fact, over 70% of us learned to row right here on the Island and at a time when we were well past our "prime" in other sports. So, there's definitely a place for you.