

# California Kayaker

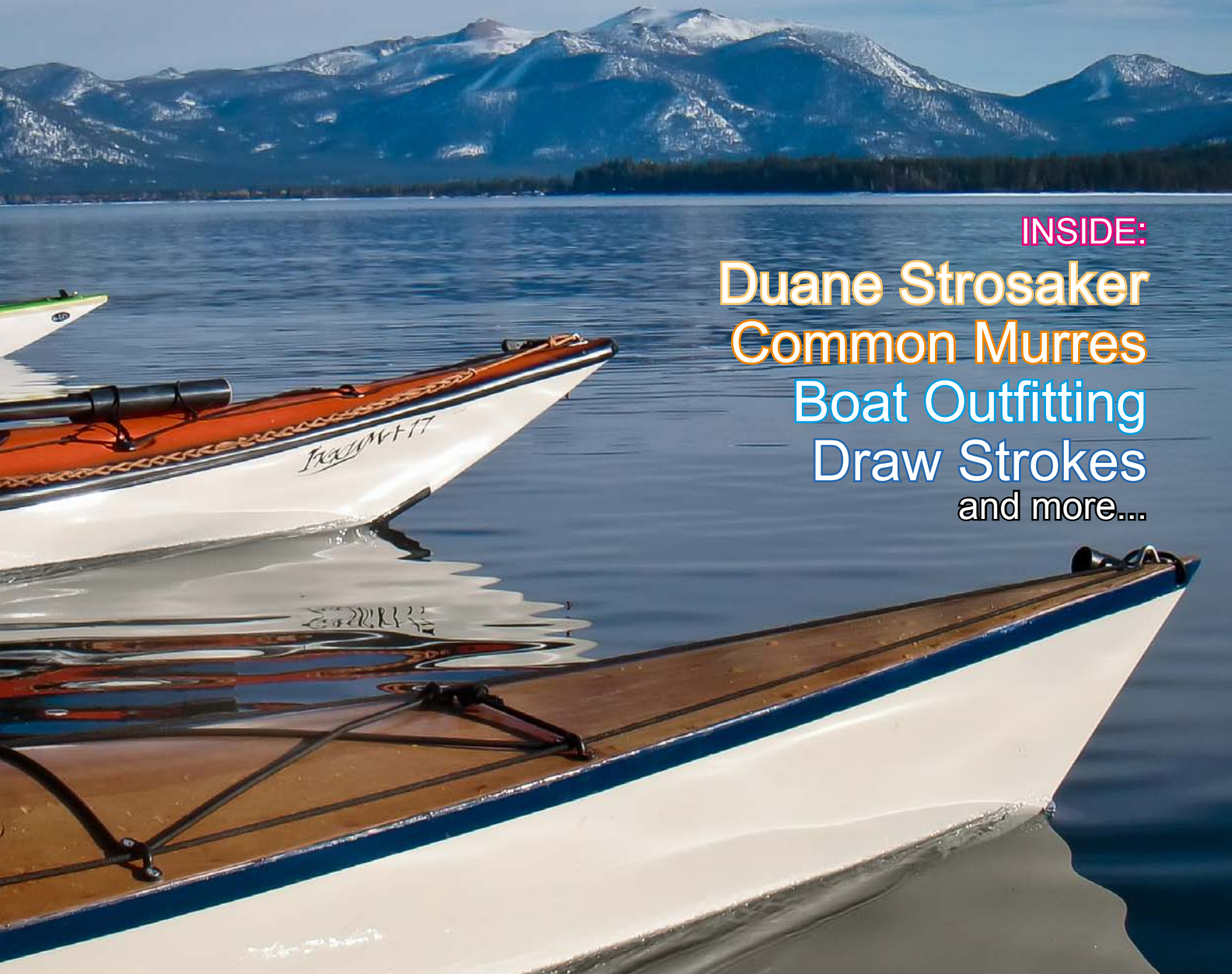


Magazine

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Spring 2011



INSIDE:

Duane Strosaker  
Common Murres  
Boat Outfitting  
Draw Strokes  
and more...



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Kayaking can be a dangerous sport. Dress appropriately, always wear your PFD, and paddle within your skill level.



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**Cover Photo** - the beauty of Lake Tahoe in the winter—calm water, snow capped peaks, and no power boats.

Photo by Lisa Ouellette

Camera: Casio Exilim



# Editor's Note

I am writing this just after getting back from the Golden Gate Sea Kayak Symposium (GGSKS). It was a great event, and a large reminder that we get to paddle year round. Much of the rest of the country is waiting for the ice to melt, but not us. Even paddling Lake Tahoe, as the cover photo shows, is possible year round. There are also lots of lower altitude options in the Central Valley, along the coast, and beyond. And the rivers and creeks have great runoff flows from our winter storms to provide plenty of flow for the whitewater runs.

GGSKS may have been one of the first events of the year, but it's just a lead off for many different kayaking events for us to take part in. Check out the very full calendar on the next page.

California Kayaker Magazine is now available to be sent by mail. This is meant to help those who aren't local to a shop that carries it and prefer printed version to online version. We do charge a small amount to cover postage and handling. See [www.calkayakermag.com/magazine.html](http://www.calkayakermag.com/magazine.html) for more info.

Happy Paddling!

**Peter Donohue**  
Editor



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## ▷EVENTS

### **25th Santa Cruz Paddlefest**

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[www.asudoit.com/paddle\\_fest](http://www.asudoit.com/paddle_fest)

### **Southwest Sea Kayak Symposium**

San Diego, CA

March 25-27

[www.aqua-adventures.com/symposium\\_index.html](http://www.aqua-adventures.com/symposium_index.html)

### **Kern River Festival**

Kernville, CA

April 16-17

[www.kernfestival.com](http://www.kernfestival.com)

### **Reno River Festival**

Reno, NV

May 6-8

[www.renoriverfestival.com](http://www.renoriverfestival.com)

### **Paddle to the Sea**

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### **Bay Area Paddlefest**

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To submit news or an event for consideration to *California Kayaker Magazine*, please send basic information to [editor@calkayakermag.com](mailto:editor@calkayakermag.com).

## ▷NEWS

### **South Coast Marine Life Protection Act**

On December 15, 2010, the California Fish and Game Commission adopted regulations to create a set of marine protected areas (MPAs) in Southern California. After a two-year public planning process, the regulations will create or modify 36 MPAs encompassing approximately 187 square miles (8 percent) of state waters in the study region ranging from Point Conception to Mexico border. Approximately 116 square miles have been designated as no-take state marine reserves and no-take state marine conservation areas, with the remainder designated as state marine conservation areas with different take allowances and varying levels of protection.

This process is part of the Marine Life Protection Act (MLPA), which requires California to reexamine and redesign its system of MPAs with the primary goal of increasing the effectiveness of MPAs in protecting the state's marine life and habitats, marine ecosystems and marine natural heritage.

The map of the South Coast MPAs can be seen at [www.dfg.ca.gov/mlpa/pdfs/scmpas121510.pdf](http://www.dfg.ca.gov/mlpa/pdfs/scmpas121510.pdf). Description of the geographic boundaries of the new MPAs and their GPS coordinates can be found at [www.dfg.ca.gov/mlpa/pdfs/sc\\_boundaries.pdf](http://www.dfg.ca.gov/mlpa/pdfs/sc_boundaries.pdf). Description of the specific requirements for each MPA can be found at [www.dfg.ca.gov/mlpa/pdfs/sc\\_regulations.pdf](http://www.dfg.ca.gov/mlpa/pdfs/sc_regulations.pdf). There is a process that still needs to be completed before they can set when these rules go into effect, but the earliest they could go into effect is May 15 (and it may be held until later this year or even until 2012 – California Kayaker will report on this as soon as they know the date).

The new regulations for the MLPA for the Central Coast and North-Central

Coast regions have already been implemented. They still are working on this process for the North Coast (which will likely be voted on at the end of this year and implemented in 2012 or 2013) and determining if they will perform these same processes for the San Francisco Bay region. For information on all regions, please view [www.dfg.ca.gov/mlpa/newsroommain.asp](http://www.dfg.ca.gov/mlpa/newsroommain.asp).

### **River Flow Information by Text Message**

The U.S. Geological Survey monitors thousands of rivers for stage (depth) and flow in real time, and now provides a service called "StreaMail". StreaMail lets you use your cell phone or email to request stage and flow information of any USGS real-time monitoring site. Within a few minutes you will get a reply with the most recent stage and flow.

To request this information, send a text message or email to [strea-mail@usgs.gov](mailto:strea-mail@usgs.gov). In the "subject" line (or possibly the first body line, depending on cell phone type) put in the USGS site number (usually an 8 digit number - for CA, the list of sites is at: [waterdata.usgs.gov/tx/nwis?program=rt&office=ca](http://waterdata.usgs.gov/tx/nwis?program=rt&office=ca)).

### **Coast Guard Asking for Help in Search and Rescue**

The Coast Guard is looking for help from paddle sports enthusiasts in an effort to help save lives and taxpayers' dollars. They have started a campaign that encourages kayakers and canoeists to label their boats, paddles and safety gear with their names and contact information. This campaign helps the Coast Guard to determine if gear was accidentally lost when it is found adrift, or if someone is in real danger.

"If there is a chance that someone is out there and in danger, we're launching. We want Coast Guard eyes on scene. We're going to figure out what happened and look for people in the water. Unfortunately, this means that we often spend a lot of

News Continued on Page 14



# Draw Yourself Into the Picture: Using Draw Strokes for Better Maneuvering

by Roger Schumann



Whitewater kayaker using a draw stroke to catch an eddy behind a mid-stream rock

**P**icture yourself paddling—perhaps through dappled sunlight down some serene coastal stream or along the shore of a High Sierra lake to your favorite fishing spot; or if adrenaline is more your appetite, how about dodging boulders down a steep whitewater creek in the foothills or into the surge channels of a remote ocean rock garden toward the mouth of an alluring sea cave. However you prefer to draw your scene, chances are if you're like most paddlers, your main focus is likely all about going forward, churning out the strokes to get from point A (where you are) to point B (where you're headed.) Next you probably focus on turning strokes, assuming that your point B isn't often in a direct line from point A; and finally stopping strokes, so you can stop at point B instead of blowing on past. Going sideways rarely enters the picture. Kayaks are long and sleek, and they don't do sideways particularly well.

But knowing how to make your kayak move sideways efficiently can be super handy at times. Whether you're pulling over to the bank of your serene coastal stream, Sierra Lake, or steep creek, or pulling yourself away from the low, overhanging wall of your sea cave before the next swell arrives and drives your head into the ceiling. Or maybe you just want to pull up alongside your paddling partner to share a snack, check the chart or stabilize his/her kayak for a rescue. Whatever your reasons, the ability to move your kayak where and when you want—in whatever direction you choose—is one mark of a skilled paddler.

Termed “draw strokes,” these under appreciated sideways strokes are actually the largest family of strokes in kayaking with all sorts of fancy maneuvering applications. Sideways in a kayak is not the most efficient way to cross the stream, lake or ocean, and if you need to move much more than a boat length or so to the side, there are generally better ways to get there. But when skilled paddlers need to move directly sideways within a boat length, a draw stroke is their typical tool of choice.

## Standard Draw

The basic or “standard” draw stroke, also known as the “beam draw” (since you are pulling to the beam or side of your boat) and the “draw to the hip,” is a good place to start. The standard draw comes in a variety of versions from the crude-but-effective to the smooth-and-efficient. In its crudest form, simply turn your paddle blade 90-degrees from normal paddling position until it is parallel to the side of your boat. Reach out, put the blade in the water and pull it toward the side of the boat. In this caveman move, changing your grip with the top hand is optional, as is pulling your blade against the side of your boat, tripping over it and capsizing. A slightly more elegant version involves lifting the paddle out of the water before it runs into the side of your craft and tips you, also not bothering with the wasted effort of changing your grip with your top hand. More refined still would be to practice what instructors term the “in-water recovery” version. This does not mean that you are in the water, but that your blade remains submerged throughout the entire stroke, using a seemingly mysterious slight of hand that, like a lot of things, is all in the wrists.





*Start the standard draw by slicing stroke out to side*



*Turn wrist so blade is parallel to side of kayak then start power phase by pulling blade toward side of boat*



*Twist paddle blade perpendicular to slice it back out to the side*

The in-water recovery version is the most efficient and stylish incarnation of the standard draw stroke, and it involves both wrist action and body positioning. First the wrist action: With blade held in the typical forward paddling position, put it in the water beside your hip, more or less where it would be at the end of a forward stroke. But instead of lifting it out of the water to reach out and start a draw stroke, simply slice it sideways, perpendicular to your kayak as far as you can reach. Then turn your palm forward until the face of your blade is facing the side of your kayak. Now pull the blade back toward you; this is the power phase of the stroke. Just before the flat blade crashes into the side of your boat and tips you, rotate your wrist 90 degrees back to normal paddling position and slice it back out again as before; this is the recovery phase. Repeat as necessary: Turn your blade and pull (for the power phase), turn and slice (recovery).

While the wrist is doing its turn-pull, turn-slice thing, the upper body—instead of just sitting there passively—can make things even more efficient by going along for the ride. “For every action,” Newton discovered long ago, “there is an equal and opposite reaction.” An intelligent paddler can apply the physics of this third law of motion to his or her advantage by turning the upper body to “face your work” as we instructor types are fond of saying. More importantly than simply facing your direction of travel, you can reach your top hand out over the water so that the paddle shaft is more or less vertical (again, without wasting the effort to change the grip of your top hand). Now all the forces are lined up properly, so that when you pull on your lower blade, it is pulling you more directly in the direction you want to go. If you stay facing forward, instead, and reach out to the side, your paddle is at a 45-degree angle, so about half of the force is wasted pushing down against the water instead of pulling yourself sideways. A final word on your top hand: It stays in place, acting as a pivot point to your vertical paddle; all the pulling action happens with your bottom hand.

At this point in learning the draw, it is fairly common to wonder why your boat is wandering sideways at a diagonal and the bow is spinning away from the stroke. Newton’s third law in action again: if you are pulling toward your thigh and your wrist is turn-



*Begin sculling by skimming the surface with blade held flat to the water*



*Begin raising the blade toward vertical (note finger pointing in direction of force)*



*Sculling with paddle near vertical, with both hands out over the side of the kayak*



ing at end of the draw into more of a forward stroke—which it is much more used to doing—you can expect to move somewhat less than straight sideways. Try turning to face your work a little more and make sure you are pulling straight in line with your hip or even an inch or two behind, depending on your boat design. Move more slowly and precisely, in this case, slow and steady wins the race.

### **Sculling Draw**

Once you've mastered the standard draw with in-water recovery, perhaps to the wonder and amazement of your paddling friends, you are ready for an even niftier trick: the sculling draw. Sculling is the action of skimming the face of your blade smoothly back and forth across the water like spreading peanut butter. In a sculling brace (used to help support you), the blade angle is fairly flat, much less than 45 degrees to the surface. If you start skimming your flat blade in the water beside you in an arc of three feet or so from about your knees to an equal distance behind you when doing this sculling brace, you'll probably start to notice a little sideways motion.

To make this stroke really work, however, you'll have to get back to Newton. Start raising your offside hand and turning to face your work until your top hand is out over the water on the same side (as with the standard draw) and your paddle shaft is moving toward vertical (so that you are bracing less and drawing more). Go slowly, without splashing, and try to maintain that same smooth, spreading-the-peanut-butter feel as before. Give yourself some time to work it out. Subtle and tricky to master, sculling is at the core of more-advanced paddling technique. It is also the base of a whole range of fancy, precision-maneuvering draw strokes used under way by skilled paddlers—such as bow rudders, side slips and cross bow techniques—that will have to wait until a subsequent article.

For now, the sculling draw, you'll



soon discover, is more efficient than the standard draw since there is no recovery phase. Every sculling motion, whether from your knee back, or from back to your knee, is a power phase, making it about twice as effective as even the best standard draw. And once you get it dialed you'll likely ditch the standard draw as a "beginners' stroke."

Like the standard draw, you might notice yourself going a bit caddy-whompus at first. Make sure that your unruly wrist is not turning your peanut-butter-spreading sculling stroke into a forward stroke again, and also be sure that you are moving your blade as far back behind your hip as you are in front.

It can be difficult to tell if you are moving in a straight line (or even moving at all, especially if it is windy) without some point of reference,

so use a buoy or paddling partner or something to help judge your progress, and practice out of the wind at first. Without a point of reference, you can also look for the slick of flat water on the opposite side of your kayak that confirms you are indeed moving sideways (see photos).

Now picture yourself again, moving not just forward and turning this time, but also gliding sideways effortlessly, for whatever reason, or simply just because you can. You are well on your way to becoming a paddling virtuoso. ♦

*Roger Schumann is award-winning co-author of Guide to Sea Kayaking Central and Northern California and Sea Kayak Rescue and the owner and lead instructor of Eskape Sea Kayaking ([www.eskapekayak.com](http://www.eskapekayak.com)) in Santa Cruz, CA. As an ACA-Certified instructor-trainer, he's been teaching classes and leading expeditions for over 20 years on our local shores and beyond--from Alaska to the Galapagos and from Baja to Brazil.*

*Photos by Sandy Rintoul-Schumann*



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# A Rocky Rest Common Murres

By Richard Golightly and Steve Smith

*Common Murres in a colony on rock ledges  
Photo courtesy of USFWS/  
Humboldt State University*



**O**n an early morning in late May we launched our kayaks and headed out around Trinidad Head. The ocean was glassy in the early morning hours. We expected that later in the day the winds would begin blowing from the northeast, as they often do in the afternoons over the waters off the Humboldt County coast. A raft of several hundred Common Murres (scientific name: *Uria aalge*) bobbed with the ocean swell in the shoal between Flat Iron Rock and Trinidad State Beach, just north of the headland. As we paddled closer, the fresh aroma of the marine air was invaded by an overpowering and unmistakable stench of guano.

The raft of murres was actively vocalizing, diving amongst the brown kelp and surfacing as long as a minute later with small silver fish firmly locked in their bills. The fish were hard to identify, but were probably some kind of smelt or juvenile rockfish. Some of the birds flapped their small and narrow wings furiously as they attempted to take flight and return to their nests on the rock in order to feed the fish to their chicks. It was not the raft of birds that smelled so pungent, but rather the white guano-stained Flat Iron Rock.

Flat Iron is one of several sea mounts along the northern California coast that serve as critical nesting habitat for a variety of sea birds like murres and cormorants, as well as being resting sites for Brown Pelicans. The distance of the rock from shore and its steep entrance into the water render it inaccessible to most land-based predators, affording protection for eggs, chicks, and adults alike. At Flat Iron Rock, the most prominent residents, by sight or smell, are the thousands of Common Murres. In fact, Flat Iron alone has more than 12,000 pairs of nesting murres. The murres are characterized by their highly contrasting brownish-black backs and heads and bright-white undersides. The murres



nest on Flat Iron from late April to early July in most years, but they start extended visits to claim their exact nesting site in February or earlier each year.

In the case of murres, the word “nest” does not describe what most people might picture in their minds as a bird nest. Each pair of murres lays a single blue-green egg among the rocks; no sticks or nesting material, just hard rock. With luck, they choose a site where their egg will not roll away, be trampled by their neighbors, or be stolen by a gull or raven for lunch.

There are relatively few large rocks, sea stacks, or sea mounts that can be used for nesting. For those that are suitable for nesting, the availability of specific sites where the terrain is flat enough to prevent eggs from rolling away, or protected from waves or ocean spray are in limited supply. This, in part, causes the murres to nest in tightly packed groups. A more important reason, however, is that there is safety in numbers that benefit both chicks and adults. The chicks and eggs on the edge of colonies suffer predation from gulls and ravens. Adults, too, can be vulnerable to eagles and falcons.

*Common Murres grow to 18 inches in length, 29 inch wingspan, and weigh about 2 pounds. Male and female murres are indistinguishable.*

*Photo courtesy of USFWS/Humboldt State University*

There is also a downside to living so close to your neighbor. When they bring a fish for their chick, they must land within the colony of birds and get the fish to the chick without the catch being stolen by another murre or resident gulls. Murres work hard for their fish, often diving to hundreds of feet below the surface. If fish are stolen or lost, it not only deprives the chick of a meal, but the parent loses a lot of time and energy that it had spent finding, catching, and air-freighting the fish back to the rock.

Murres also share the rock with larger, more aggressive cormorants. Two species of cormorants, Brandt's Cormorants and Pelagic Cormorants, nest on the rock. Unlike murres, Brandt's Cormorants build substantial nests of sticks and are very aggressive towards any intruder. Brandt's Cormorants' nests are widely spaced across the rock, and no bird will venture within a necks-reach of a cor-



*Above: mixture of cormorants and murrelets. Notice the space around the all black cormorants.*

*Below: Common Murre carrying a fish.*

*Photos taken by a robotic camera, which is parts of the Humbolt State University research project*



morant's hooked-bill, or at least not without a serious jab from the nest-holder. Murres often nest just beyond the reach of a nesting cormorant and actually benefit from the cormorant's protection of its own nest.

Relatives of murres in the auk family, such as Cassin's Auklets and Rhinoceros Auklets, also can be found on these rocks. Paddlers may see these auklets on the water; however, their nests will not be visible, even though they use some of the same rocks for nesting (for example, Castle Rock off of Crescent City). Auklets burrow into the fragile and very limited soils on the rocks. They nest well underground and come and go under the cover of darkness. Their small size makes them especially vulnerable to predatory birds.

The safety of the rocks for nesting is often key to seabird reproduction. Murres appear very numerous, both on the rocks and in the water, because the individuals are linked together by use of the same rock for nesting and that rock's proximity to the fisheries they use to feed themselves and their chicks. Thus, a disturbance of any kind during the breeding season will affect the shared occupants of the rock. Specifically, disturbance from a low flying aircraft or from watercraft that get too

close to the colony can be disastrous to the reproductive effort of the whole colony. Often the first sign of alarm from disturbance is intense and nervous "head bobbing"—their heads or whole bodies move in an up-and-down motion—sometimes involving the entire colony. Paddlers who observe head bobbing are too close to the colony and should move away immediately before the birds take flight from the rock. In the chaos of a mass exodus by distressed murres, many eggs are damaged or roll away and are lost. In the absence of the parents, both chicks and eggs are vulnerable to predation from gulls and ravens. So, the fate of one nest can become the fate of most nests in the colony. A single disturbance event during the nesting season can cause a significant proportion of the nests in the colony to fail and that colony will lose their reproductive effort for an entire year.

There are not many colonies along our coasts. For example, there are only nine significant murre colonies between Trinidad Head and the Oregon border (a distance of 75 miles of coast). So it does not take very many disturbances to impact the entire population along the coast. Paddlers can help ensure reproductive success of breeding colonies by

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Gulf of the Farallones Seabird Protection Network has a video showing kayakers spooking sea birds off of rocks and a separate video showing what happens when sea birds are spooked (by an unknown source): [www.youtube.com/user/SeabirdProtection](http://www.youtube.com/user/SeabirdProtection). More information on the Gulf of the Farallones Seabird Protection Network can be found at [farallones.noaa.gov/eco/seabird/welcome.html](http://farallones.noaa.gov/eco/seabird/welcome.html).

During the breeding season from April through August, the Castle Rock (Trinidad) breeding colony of murre can also be observed by web cam at [users.humboldt.edu/rgolightly/research/castle\\_rock.html](http://users.humboldt.edu/rgolightly/research/castle_rock.html).

Last year, six special closure areas went into effect off of Marin and San Mateo counties as the result of the enactment of rules under the Marine Life Protection Act. These closures are between Chimney Rock and the Point Reyes Lighthouse; Point Resistance and Stormy Stack on Drake's Bay; Egg Rock off of Devil's Slide; and two areas at the Farallone Islands. These closures were all put in place to protect breeding colonies for sea birds. See the News section of the Spring 2010 issue of *California Kayaker Magazine* or the MLPA page at [www.dfg.ca.gov/mlpa/newsroommain.asp](http://www.dfg.ca.gov/mlpa/newsroommain.asp) for details.

giving them a berth of at least 300 yards during the breeding season.

Murres, cormorants, pelicans and many other species are all a part of the wonderful experiences in nature that are accessible by kayak along the California coast. In suitable ocean conditions, experienced paddlers can readily and responsibly view these birds in the water as well as the murre colonies at various locations from south of Big Sur to past the Oregon border. As paddlers,

we should be mindful that when we are on the water, we are visiting the place where these birds feed, reproduce, and complete all the necessities of life. It is their home. As mindful guests in their domain, we can look forward to lasting adventures and memories that follow us when we return to our own terra firma. ❖

*Richard Golightly is a seabird ecologist and researcher who is on the faculty of the Wildlife Department at Humboldt State University. Steve Smith is a professional biologist and avid sea kayaker. Both are long-term residents of California's north coast and have spent many hours boating on the waters near the seabird colonies in northern California.*



*Common Murre colonies are often packed on very tight ledges. Photo by David Thyberg/Shutterstock*

## News - Continued from page 5

time searching the water for people who are safe at home. If we are able to contact the owner and verify the vessel was not in use when we found it, the case can be avoided completely, conserving our Search and Rescue assets," said Coast Guard Petty Officer First Class Anthony Kozak.

Clearly labeling all paddle equipment with identifying information can also provide important information the Coast Guard can use to search, in the case of a real emergency.

The U.S. Coast Guard Auxiliary provides free identification stickers, which are available at all safe boating classes and events at which the Coast Guard Auxiliary is participating. Permanent markers and paint can also be used to label paddle, boats, and equipment, and multiple contact numbers are encouraged.

### PFDs Required for SUP

Stand-up paddleboards (SUP) are treated as vessels in the eyes of the U.S. Coast Guard. This classification, which went into effect 2 years ago, means that SUP users—when outside surf or swim zones—are required to carry a Personal Flotation Device (PFD), a whistle and, if out after dark, a flashlight to give fair warning to other boaters that they're in the area.

Recently, the Human Powered Watercraft Association received a letter of clarification from the United States Coast Guard that stated "If a paddleboard is used within a designated

swimming, surfing or bathing area, the Coast Guard does not consider it to be a vessel." State and local agencies have long been using "vessel" status to segregate or ban the use of watercraft from popular swimming beaches and surf breaks. When the USCG applied vessel status to SUP's it resulted in an unintended consequence where surfers carrying paddles were banned or restricted from many popular surfing locations.

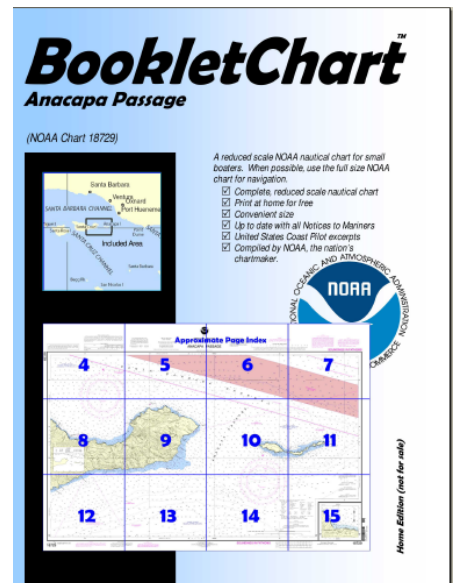
The vessel designation does not apply to the racing boards where the users kneel or lie prone and use their hands to propel themselves.

The Coast Guard has waived the usual requirement for a manufacturer to put a Hull ID Number (HIN) on the 'vessel,' so your SUP does not need an HIN.

### NOAA's BookletChart

National Oceanic and Atmospheric Administration (NOAA)'s Office of Coast Survey has released the experimental BookletChart, downloadable and printable PDF charts to help recreational boaters locate themselves on the water. BookletCharts have been reduced in scale and divided into pages for convenience, but otherwise contains all the information of the full-scale nautical chart. To download a BookletChart, go to [ocsddata.ncd.noaa.gov/BookletChart](http://ocsddata.ncd.noaa.gov/BookletChart).

If you print and laminate these, it may not be more cost effective than buying a waterproof chart. Options to help keep the cost down would be to buy a waterproof chart case or to use



a product like Thompsons Waterproofing in a spray can (spray each side once, ensuring thorough but not dripping coverage, hang to dry, and you should be good to go).

### Werner Healthy Waters

Werner Paddles supports several non-profit partners through its Healthy Waters Initiative. Healthy Waters allows Werner customers to direct a portion of their purchase to a non-profit of their choice. After purchasing a Werner paddle, the consumer can go to [www.wernerpaddles.com](http://www.wernerpaddles.com) and select from a list of non-profits, including American Canoe Association, American Rivers, American Whitewater, and Surfrider Foundation, for Werner to donate to in the purchaser's name. "We are very proud of our commitment to the natural world. Healthy Waters is a great program for differentiating our product from the competition while giving the customer the ability to support a non-profit whose focus is access, water quality or education" says Jim Miller, Werner's Marketing Manager.

### GGSKS Update

Golden Gate Sea Kayak Symposium took place over the weekend of February 18-20, 2011. Over the three days, there were 27 classes with a total of 232 students (many taking more than one class). The major-

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*Some of the classes at the Golden Gate Sea Kayak Symposium take you under the bridge*

ity of these students were from California, but a full quarter were from other areas of the US and Canada.


Sean Morley, one of the organizers, reported "the 3rd annual Golden Gate Sea Kayak Symposium was a great success despite some unusually cold, wet weather for two of the three days. The wonderful attitude of the participants and instructors was rewarded by a gloriously sunny third day that confirmed San Francisco Bay as one of the best sea kayaking destinations in the world. We would like to thank all of our sponsors, instructors, and of course the participants for making our third year the best so far and we will be working hard to make next year's event even better."

During the Saturday night festivities, there was a raffle held with a variety of gear prizes, with the top prize being a Kokatat dry suit. *California Kayaker Magazine* and Joe O' Paddles teamed up to donate a JoeO Custom Greenland Paddle, won by Richard H. of Alaska. The raffle raised over \$1400, which was donated to the Marine Mammal Center. ❖





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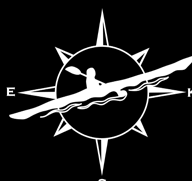
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# Center



Damon Mcguire at the “Smack Wall” in Trinidad. This area is known for making large splashes when waves smack into the wall, followed by a rebound wave that can be surfed. It is relatively safe, as the surf wave goes for a short distance before fizzling out in deep water.

Photo by Daniel Arbuckle

Camera: Olympus 850SW

Have a photo that shows the beauty of kayaking or otherwise makes people think?  
We'd love to see it. Send submissions to [editor@calkayakermag.com](mailto:editor@calkayakermag.com).  
Include the background story and what camera was used.



# Hatch

A large guided tour leaving Channel Island's Scorpion Anchorage and hooking up to the Island Packers boat—the concessionaire that transports visitors from the mainland to the islands—for a tour along a remote region along the west end of the island.

Photo by Chuck Graham

Camera: Canon EOS 630





# Roll or Drown

## An Interview with Duane Strosaker

*Self-portrait taken at one of the oil wells  
off of the California Coast*

**T**he first time I saw Duane Strosaker, he was hanging upside down from a rope in the basement of the Hostel used as the base for the Golden Gate Sea Kayak Symposium. He was demonstrating Greenland rope skills to an attentive audience, who then had the opportunity to try what he demonstrated (and trust me, the skills are not as easy as he makes them look).

Duane is quite accomplished in Greenland skills, but also an accomplished overall paddler. Most people think of rolling when they think of Greenland skills, but Duane is also quite good at paddling over long distances. Good enough that *California Kayaker Magazine* ran an article by him on this subject in the Winter 2010 issue.

### **CKM: How did you first get into kayaking?**

**DS:** I bought my first kayak, a sit-on-top, in 1995 for fishing. A year or so later, I bought a sea kayak for more range. Over time, I fished less and less, and paddled more and more. For me the draw of sea kayaking is the adventure and camaraderie, things I missed from back when I was a paratrooper.

### **CKM: Most memorable moment kayaking?**

**DS:** That would have to be the great white shark attack. Having that sea monster wrap its jaws halfway around my kayak just in front of the cockpit was pretty memorable. (Editor Note – you can read the full report on this incident on Duane's blog at [www.rollordrown.com/shark.htm](http://www.rollordrown.com/shark.htm)).

But in some ways, kayaking down the Grand Canyon, with all its big rapids, was more traumatic. There was also the 44 nautical mile day when I crossed solo from Catalina Island to San Clemente Island and back, and along the way back, sort of wondered if I was going to tire out and die in the wind and waves. The solo night crossings in thick fog to seven offshore oil rigs was mentally the toughest thing I've done. Several up close encounters with huge blue whales were memorable too.

### **CKM: What do you do for a day job/outside of kayaking?**

**DS:** I'm a burned out licensed private investigator. After 15 years I was fed up with everything being adversarial. Several odd jobs later, I ended up as a security supervisor at a museum. With lots of vacation time and flexibility for time off, it's the perfect job for a kayak bum. I've



avoided working in the kayak business, because it would interfere with my own paddling. I only dabble in the business, like instructing or making a paddle, when it seems fun.

**CKM: What type of kayaking do you like most?**

**DS:** I love crossings and playing in the surf. Nothing is more wonderful than being far offshore on a calm day and not being able to see land. You're committed out there, and everything is focused on making the crossing. It's a long, slow high. The surf in a sea kayak is fun, because you're flying down the waves, getting pounded, and putting the bracing and rolling skills to good use.

**CKM: Do you have any kayaking goals for the future?**

**DS:** Mainly, I just want to have fun paddling and hang out with friends. I'm a paddle-where-you-live kind of guy, so I never think about any far

*Based on the bite marks, it was a  
LARGE shark...*

away exotic trips. All the adventure I need is right here in California. But that doesn't mean if something came up that I'd turn it down. I enjoyed training for and competing in Greenland Week up in Washington State, and I might do it again this year. I usually do an island crossing trip with friends each year and build a kayak and few paddles too. Throw in surf, day paddles, and watching whales, and there's always something going on. Kayaking is a life style and things just happen.

**CKM: I have heard you challenging yourself with the Channel Islands and with the oil rigs. Can you describe these challenges?**

**DS:** Over several trips I crossed to seven of the eight Channel Islands in Southern California. I really like being offshore in a kayak, so naturally the islands were sort of a "because they are there" thing. Down here the main thing is to wait for the right weather. It wasn't till my fourth planned attempt at the 34 nautical mile crossing to

Santa Barbara Island that I had the right weather for it.

My greatest crossing was solo from Catalina Island to San Clemente Island and back, a 44 nautical mile day. San Clemente Island is a Navy island, so landing there is prohibited. As far as I know, the only other sea kayaker to cross to that island is Ed Gillet, who is famous for crossing from California to Hawaii by kayak. But I heard he camped at San Clemente Island, so I'm the only one to cross there and back the same day.

The only Channel Island that no one has reached by kayak is San Nicolas Island. I was miserable enough after coming back from San Clemente Island that I vowed to never try San Nicolas, which is also a Navy island where landing is prohibited. That would require a 50 nautical mile day from Santa Barbara Island to San Nicolas and back in beam winds that are typically 15-20 knots. Sometimes I think about trying, but then I do "Catalina for Lunch," a 38 nautical mile day out to the island and back, and get miserable enough to change my mind.

After the Deepwater Horizon oil spill disaster near Louisiana, I felt the need to raise awareness of the 23 offshore oil rigs in Southern California by crossing to all of them. Most of the oil rigs are 7 or 8 nautical miles offshore, and I did 3 to 7 of them at a time, so most of the days were around 25 nautical miles. With the luxury of waiting for the right weather, it was fun being out there. For more of a challenge, I crossed to 7 of them one night, when thick fog unexpectedly made it much more difficult. It was so dark that I could barely see my hand in front of my face, and the bioluminescence coming off my kayak and paddle in the water was so bright it hurt my eyes to look at it. Being offshore solo in such darkness, I really had to focus on staying calm.

To find out my limit for distance, I paddled 100 nautical miles along the coast without landing or sleeping. It took me almost 36 hours. During





*Duane competing in the harpoon throwing competition at Greenland Week*

the last 6 hours, the desire to land and sleep on a beach was almost overwhelming. I kept tricking myself by saying I'd land on the next beach, and when I got to that beach, I'd say wait till the next beach, and so on, until I actually finished. Sometimes I get the crazy idea to do that again, but it goes away.

**CKM: What got you into Greenland kayak skills?**

**DS:** Early in my kayaking career, some friends were using Greenland paddles (GPs), so I began making and using them. But back then it was hard to find instruction with the GP, so I went back to the Euro paddle to go through the BCU 3 and 4 Star sea training and certification proc-

ess. I still dabbled with the GP, but it wasn't until the first Traditional Arctic Kayak Symposium at San Simeon in 2006, when I saw Dubside do the ropes and rolling, that I realized what incredible kayakers the Greenlanders are to have created all those different moves that are hard enough to just imagine, much less think you might be able to do, and somehow figure



*Duane during the rolling competition at Greenland Week*



Duane at at Greenland Ropes competition at Greenland Week



out a way to actually do them. That began my pursuit to learn all that Greenland style paddling has to offer.

**CKM: Which of the Greenland skills is your favorite and why?**

**DS:** Nothing beats forward stroking. As I like to say, enjoy every stroke. That applies to rolls too. Working on the Greenland competition rolling list is incredibly humbling and the hardest thing I've ever tried. Being upside down underwater in all kinds of awkward positions also makes you mentally tougher and much more aware of your body, kayak, and paddle. But it's all just a way to express yourself. ❖

*Photos from Greenland Week are by Nicole Strosaker, and the rest are by Duane Strosaker.*

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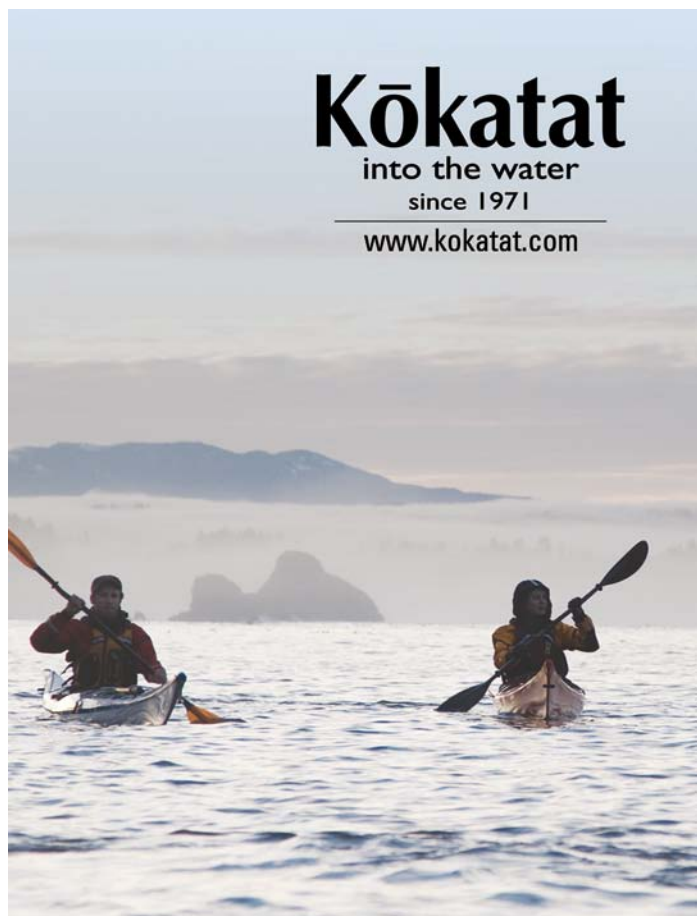
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A photograph of a person in a yellow kayak, labeled 'Dagger', demonstrating a footbed modification. The person is wearing a grey tank top and dark pants. A white rectangular footbed is placed on the kayak's foot peg. The background shows green foliage.

# Outfitting Your Boat for Comfort & Control – A Medical Perspective Part 2 – Standing on Solid Ground

By Gregg Berman

*The author demonstrating how the new footbed described in the article would be positioned*

**W**hy do we only gain the greatest appreciation for something after its absence? I spend a great deal of time outfitting my boats for comfort and control. Recently spending long hours in an unfamiliar kayak without that outfitting was a great reminder as to why the effort was worth it. I developed aches and pains, including foot and calf cramps and a sore low back, which have become unfamiliar in my outfitted kayak.

In the Winter 2010 issue of *California Kayaker Magazine*, we discussed how to alleviate pressure on our sit bones and fatigued hip flexors by modifying our seat. Let's further alleviate pressure points and stressed muscles created by poor ergonomics with improvements to support our feet.

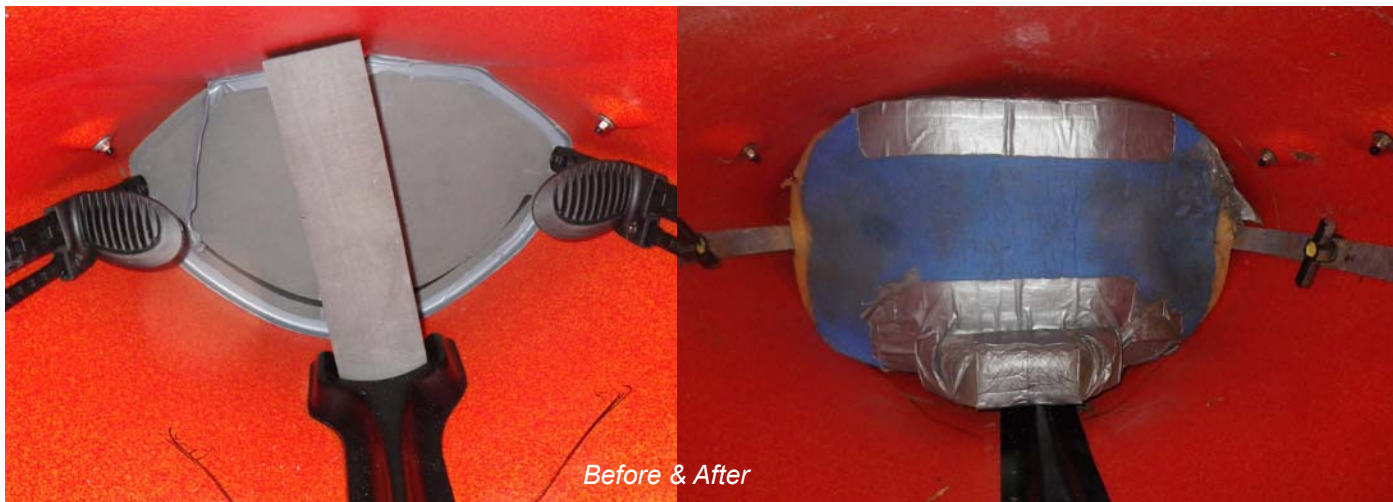
How would your muscles feel if you were forced to stand tip toe on the balls of your feet from the moment you awoke in the morning until you climbed back in bed at day's end? Worse, imagine being asked not to move while in that position. This lack of motion creates static stress on your muscles, preventing relief provided through movement. Your calf and foot muscles would quickly fatigue. If that's not difficult enough, your support is a rigid and very small platform, measuring maybe 2"x2.5". That's the approximate dimensions of the most

common kayak foot pegs and is smaller than a deck of cards. My own foot, though not very large (men's size nine shoes), still measures greater than 4 inches across at the ball. This means any stress must be absorbed across a very small area which creates excessive pressure on the nerves and blood vessels located there. Is it any wonder paddlers want to take their feet off the foot pegs whenever the opportunity presents itself?

Normally we stand with the bulk of our weight supported on our heels. This distributes the stress to our bones that provide the framework of support structures for our bodies, allowing our muscles to just serve as the movers of those support (bone) structures. Yet in our kayaks most foot pegs are designed to have the balls of our feet "rest" upon them. This is anything but restful. Though you might not feel it (then again you probably do), your calf muscles must remain constantly contracted and stressed at least to some degree while essentially standing on your tip toes the whole time you are in your kayak.

So you say, "what if I just move my foot pegs to a closer position to prevent having to hold myself in this tip toe position?" Actually that makes matters worse as now instead of the forces being exerted on your extended calf muscles, these forces are placed on your Achilles tendons as they approach the limits of their functional range.





*Before & After*

Add to those issues, foot pegs installed by manufacturers are made for the “average” paddler. Of course who amongst us is average sized? Depending on your shape and paddling position, the foot pegs might not be positioned to optimize what little surface area there is for support. For example, if you keep your legs and feet in the typical splayed position to facilitate edge control, the foot pegs may be situated too high to get the balls of your feet comfortably on them. You may end up with as little as a few toes coming in contact with the pegs. One solution is to remove the foot pegs, fill in the old holes, drill new ones and remount the system.

Moving the foot pegs (as I used to do) does not correct the issue of their small size which translates into a detrimental concentration of pressure. Nor does it correct the issue of keeping our calves in a constant state of work. There are variations to the typical foot peg system, some of which have a larger surface area. This can spread the pressure more evenly throughout your foot. Changing position for comfort though, is still limited without taking your foot off the pegs and thus losing your support.

For boats with rudders, your options are somewhat limited. There are some rudder systems (example: [www.qcckayaks.com/kayaks/rudders.asp](http://www.qcckayaks.com/kayaks/rudders.asp)) that remedy this by separating the foot peg into two parts. Your heel rests on the stationary portion of the

foot peg for support, while the ball of your foot controls the rudder with the moveable portion. For solid support, this is far preferential to the rudder foot controls that allow the whole foot peg to move back and forth on a track to turn the rudder.

For static foot pegs on boats without a rudder, to get full foot support you want a system similar to what is in use for many whitewater kayaks. A foam foot cradle mounted on a bulkhead offers the best distribution of pressure while allowing much of that pressure to be placed in the heels. If you have a composite sea kayak and the bulkhead is not in the right location, then you can reglass

the bulkhead (or have it done professionally) to wherever you need it. Be sure to allow room for making a personalized foam foot cradle (see photos). Usually an added benefit of this is increasing storage space in your front hatch while reducing the potential volume of water filling your cockpit in the event of a capsize.

For plastic boats you can't simply glass in a new bulkhead. A glued-in foam one would quickly be kicked out by the force of your feet pushing against it. So in the past I've simply bought a footrest system such as [www.canoesandkayaks.co.uk/product/1831/Bulkhead\\_Footrest\\_Dagger](http://www.canoesandkayaks.co.uk/product/1831/Bulkhead_Footrest_Dagger). These are designed for whitewater



*Cutting board and aluminum straps formed to provide extra support for the bulkhead*



*The various foot positions available using the new footbed described in this article*

the foot pegs had been mounted. Multiple holes can be drilled into the aluminum to make the system adjustable if so desired. Whether you have a composite or a plastic boat the new position of your bulkhead should be 3 to 4 inches closer to the bow (i.e. further from you) than where your feet would sit to allow enough space to accommodate the foam foot rest we'll make next.

To do this sit in the kayak and with a permanent marker trace the outline of your feet on the floor of your cockpit. This tells you the exact location to place the foam foot rest. You'll also want to trace that outline onto a piece of cardboard for a template. In my case, I used that template to shape a combination of closed cell foam and Tap Plastics ([www.tapplastics.com/shop/product.php?pid=79](http://www.tapplastics.com/shop/product.php?pid=79)) expandable polyurethane foam. I used a large

boats, so if this is what you are outfitting, you might be good to go. If you have a very low volume whitewater, polo, or surf kayak these might be too big, so instead, simply place the kayak on end and fill with the foam described below. Since I've not found any commercial bulkhead foot rests for larger volume boats, modification is required to fit into most sea kayaks. For that reason, I decided to

come up with a system of my own.

To provide strength to my bulkhead, I bought an inexpensive hard plastic cutting board and whittled the edges till it fit where I needed it inside the boat. Next, I took two aluminum bands that were stiff but I was able to bend into shape and affixed those to the back of the cutting board. I drilled holes in these to mount them where



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plastic storage bin as the mold, sprayed the foam in it, and then sanded that to a perfect fit. I like the expandable foam for its ability to fit to fill any size or shape and relative low cost. It can also be dyed to any color. The closed cell foam adds a softer finish and its elasticity provides greater shock absorption. The specific materials however are purely your choice.

The new footbed cradles your whole foot providing full balanced pressure distribution. Since the bulk of the stress is placed on the heels instead of the balls of your feet, your calf muscles don't have to be constantly taxed. As shown in the pictures it also allows you to change foot positions and to stretch out your legs as desired while still having stable support. The pictured system is based on my style of paddling but can be customized for whatever foot position you prefer.

With proper outfitting it's amazing how comfortable your kayak can be. In my case, many years ago, I herniated three discs in my low back. For that reason, I tend to be very particular about avoiding poor stress and promoting good stress to strengthen the core muscles of the back. With the outfitting discussed in this series of articles, I'm very happy to say that my boat is one of the most comfortable places I ever sit. I've never experienced back pain caused by paddling when in a properly outfitted boat. With proper ergonomics, despite my old injury and my penchant for playing in very rough seas, my back actually gets stronger and stronger all the time. Yours can too, so improve your outfitting and happy paddling. ❖

*Gregg Berman is an Emergency Room Registered Nurse, ACA Level 5 Coastal Kayak Instructor and can be found paddling throughout the San Francisco Bay Area playing with his friends in BASK, guiding with Environmental Traveling Companions, and working for Sunrise Mountain Sports in Livermore.*

*Photos by Gregg Berman and Amy Byers*

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# Advanced Elements AirFusion Review



*Photo by Rick Flavin*

Inflatable kayaks (IK) have been around for a while. In the simplest form, they are made from bags of air that form into the shape of a kayak when inflated. This provides the benefit of packing down to a small storage size, but a downside is that they are often slow on the water.

A skin on frame (SOF) kayak is based on the original kayaks used by native people in Greenland and the Aleutians, but instead of animal skins on bone frames, current ones are made of modern materials like ballistic nylon and light-weight wood frames. They are generally custom made boats to a particular paddler, and usually follow more traditional designs (low volume, very small cockpit opening, etc.). SOFs are light weight boats, but come with some limitations (including the big one of limited options for self-recovery from a wet exit – one of the reasons that Greenland paddlers are famous for rolling).

It would be great to have a boat with the positive attributes of both—light weight, small storage size, and decent speed—in one boat. Feathercraft, Trak Kayaks, and others make folding kayaks that are mixtures between IKs and SOFs and have many of these positive attributes, but with the one large negative attribute of being rather pricey.

Advanced Elements has been making IKs for a long time. When we first saw their AirFusion last year, we took a bit of a double take, as it seemed like it was that mixture of SOF and IK, but at a reasonable price point. But the

question remained - does it take the best features of both types of kayak, or the worst?

## Boat Set Up

The Advanced Elements boats come with the skin in kayak form, a set of oversized aluminum “tent” poles, a pair of thwart bags, a foam floor, and seat. To set up, you lay out the skin, insert poles, and then inflate the 7 air chambers. The air chambers push the aluminum frames into their proper locations, which provides the rigidity for the boat.

The instructions can seem a bit challenging at first, but aren't too bad. Make sure you can tell the bow from the stern, which isn't that easy to tell when the boat is de-



*Unassembled kayak all laid out*





### Manufacturer's Marketing Speak:

The AirFusion™ Kayak is designed to rival the performance and speed of skin-on-frame kayaks while simplifying the setup procedure. Its unique design is a fusion of aluminum alloy frame poles and pressurized air tubes which result in a high performance rigid frame system.

### Special Features:

- Performance: Aluminum frame, and high-pressure air chambers provide a hull speed comparable to a hard-shell.
- Quick Set Up: Compared to Frame and Skin Kayaks, high-pressure air chambers reduce frame parts for faster set-up time.
- Durable: Heavy-duty PVC Tarpaulin material for extreme puncture resistance.
- Style: This narrow beam design paddles like a rigid hard-shell kayak.
- Portability: No roof rack needed! Pack in the trunk of your car or fly it to remote destinations.

### Specifications:

- Length: 13'
- Width: 25"
- Weight: 32 lbs (14.5 kg)
- Max Capacity: 235 lbs (107 kg)

**Suggested Retail: \$850**

[www.advancedelements.com](http://www.advancedelements.com)



flated. PD found that “the poles that go down the center are the hardest to install and take apart. The rest of the poles assembled without trouble.”

RW commented that “the instructions could use a little more visual detail on how the thwarts sit in between the main inflation chambers along the sides of the boat. I had trouble with them misaligning above or below the rods that ran between the upper and lower chambers.” If the thwarts are not set reasonably square and aligned with the poles, the kayak will have wrinkles or bulges in the skin which would affect its performance (or at least make it look kind of out of whack).

How long does it take to set up? After a couple of times doing it, PD was averaging 15 minutes and felt he could probably get it down to 10 minutes. KL and RW both took close to an hour on their first try, which dropped to 30 minutes the second time. They expect they can get it

down to 15 minutes with practice.

KL had this comment on boat fit:

“The foot rest is the front thwart air bag. The position of this thwart air right, you are stuck with it for the day or else have to release the air from at least one air chamber, reposition the front air bag and re-inflate. The air chambers have to be inflated with a pump that has a gage, and unless you carry the pump, adjustments are not possible even if you find a place to land.” So it is worth getting this right before you go out, and marking with a magic marker where the foot rest/thwart should go so you can make future set ups easy.

RW also commented about thwart placement for proper seating, but noted that the seat adjusts easily using the 4 attachment straps. He also found the seat bottom to be very flat, but suggested placing an inflated paddle float under your knees to help alleviate leg and back soreness (see

boat fit article in Winter 2010 issue of *California Kayaker Magazine*).

Having a pump is required, and one does not come with the kayak. The instructions say not to use compressors, as there is a chance of over-inflation. It is recommended to get a pump that both inflates and deflates (all of the ones offered by Advanced Elements do this). So along with the other standard gear you would need for a kayak (paddle, PFD, clothing, etc.), you would need to add a pump (most retail for \$25 to \$35) to your shopping list with this kayak.

### Reviewers

GB – 110 lbs, 5'1"

KL – 125 lbs, 5' 5"

PD – 220 lbs, 6' 0"

RW – 170 lbs, 6'2"

KL also let some new paddlers try the boats – their heights and weights are unknown.



*Tight fit, even for a  
10" x 3" x 2" dry box*

## Performance

Most IKs don't track (go straight) well, so we looked at this first. And the AirFusion does track well—comparable to a hard shell kayak of similar length. KL reported "I teach a half-day class in recreational boats at a local shop. Some of these boats as so short, with beginners the paddlers follow a zig-zag course. The AirFusion is long enough that the beginners could paddle a straighter line. A 12 year old I took with me leaned his AirFusion pretty hard at one point, but the boat forgave him and he avoided a cold water swim."

RW found that the boat turns on a dime, requiring as little as 4 strokes to turn 180 degrees. Since it is so light, it is easy to accelerate quickly, and make easy course corrections. Edging is difficult, due to a lack of good thigh bracing.

Ok, so it tracks and maneuvers well, but how about speed? IKs are generally slow. Using a GPS, we found that the AirFusion is about as fast as you would expect from a 13' long 25" wide hard shell kayak. Cruising speed was 3-3.5 mph and you could sprint to over 5 mph.

PD also tried rolling and recoveries with the boat. "I was able to self-recover with it. It should be possible to do a paddle float self-recovery, but I am not sure how well the bungee on the back deck would hold the paddle. I didn't try that, but was successful multiple times doing a cowboy scramble recovery. The boat, even with a cockpit filled with water, had plenty of flotation and seemed more stable than if I was in a similar width hard shell kayak that was flooded."

PD was not able to roll it, as he was not able to stay connected with the

## Pluses

- Light weight
- Compact
- Easy to set up and break down
- Decent paddling speed

## Minuses

- Not enough storage
- Could use thigh braces
- Needs to be set up properly before starting the paddle, as on the water adjustment isn't possible

boat and the spray skirt popped off right away. Advanced Elements does have optional thigh straps for some of their boats, but not for this model.

PD's weight is close to the maximum rating for the boat, and felt that when paddling the cockpit combing was a bit lower than he would like. He took the boat out into the San Francisco Bay and into a tide rip with 1-2 foot waves, and it was getting towards the limit of his comfort level for the boat. Thigh straps may have helped him feel more comfortable.

GB commented that there isn't any significant storage area. The only access to bow and stern is through a small zipper, which would not allow access for anything large (and the front one is partially blocked by one of the frame poles). Dry bags could be slipped into the bow or stern before pumping up the thwarts, but then could only be accessed by deflating the thwart. Challenge is that there is no place to carry a pump to re-inflate, so this may not be possible. Only other storage would be at your feet, behind the seat, or strapped on the deck. So this boat works fine for day trips, but would not be good for overnight (or longer) trips.

GB also got wet in the cockpit from paddle drip, and recommends carrying a sponge to dry out the cockpit as you go. Or you could get the optional spray skirt, which does well at keeping drip off of you, but does not attach securely enough to stay on if a wave hit your deck.

## Disassembly

The actual disassembly goes pretty

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*The kayak and gear even fits in the trunk of a small sports coupe*

quickly, probably faster than assembly, so long as you don't have a lot of water to dry or dirt to clean up. RW suggests using a sponge, as it eases the removal of any water that finds its way inside the boat. He also suggests taking advantage of the pump's deflation setting, if it has one. "It helped to remove air with the pump, then close off the valves quickly. Taking out all the air made the boat much easier to roll up and put away."

### Overall Impression

GB liked how it tracked well—much better than other IKs she has been in. Yet it was still maneuverable. She would not feel comfortable in waves, without some sort of thigh straps to help her control the boat.

KL loved the portability. All the boat parts and the pump fit into a large duffel. The filled duffel is not light, but easier to carry than a hard shell sea kayak. The inflated kayak was also much easier to carry than her sea kayak. Advance Elements lists the boat at 32 lbs, less than half the weight of her Perception sea kayak.

PD felt that it was an excellent price for a boat that stores and travels in a small package, yet still acts like a more traditional sea kayak. He does wish they would come out with a version that is a foot or two longer, so it

could have a higher weight capacity (though he added that dieting would also help) and a bit of storage.

RW felt that the AirFusion is a capable little kayak, ideal for most flat-water situations. With practice, it is easy to setup and take down, and it fits inside the trunk of your car. "For those times where you are not venturing out on the ocean, it can be the handiest boat you've ever paddled!"

### Who Should Paddle this Kayak

This boat would be recommended for people who will use it for day trips on protected, flat water. It is not recommended for white water or in significant waves. KL stated it well "The AirFusion was a good boat for the quiet, protected water of the Alviso Sloughs I tried it in. It's easy turning and short length are nice for the narrow channels."

It does set up and take down easily, so would be good for a person who has tight storage requirements at their home or is not able to transport a full sized, hard shell kayak on their vehicle. It would be preferable if you have a place where you have access to a hose to rinse the boat off and space to lay the boat out to dry.

It would also make a good second kayak that could be used when you have a guest. ❖

*Photos are by California Kayaker, unless otherwise noted.*

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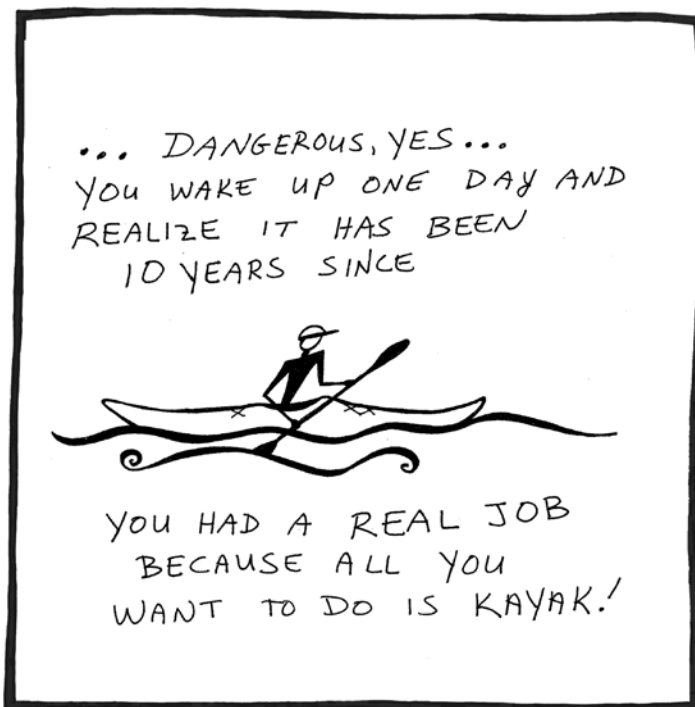
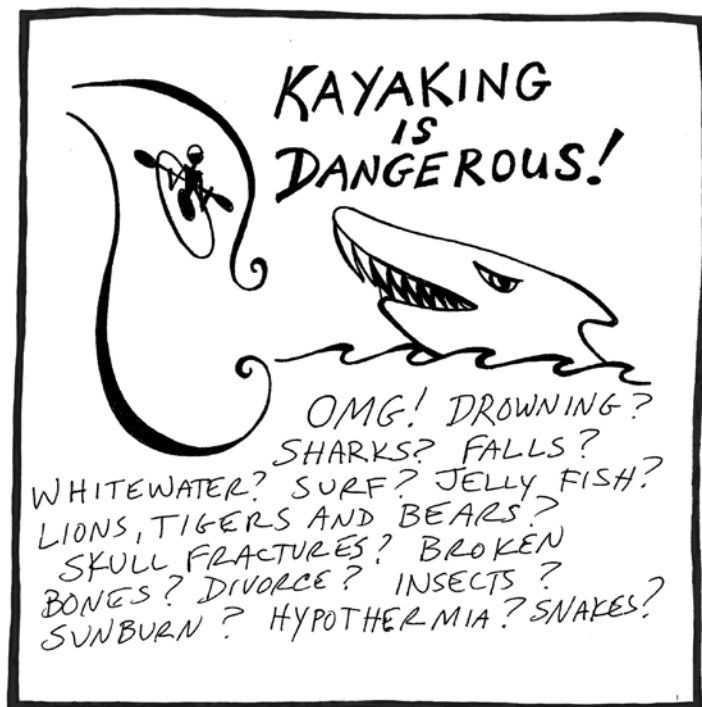
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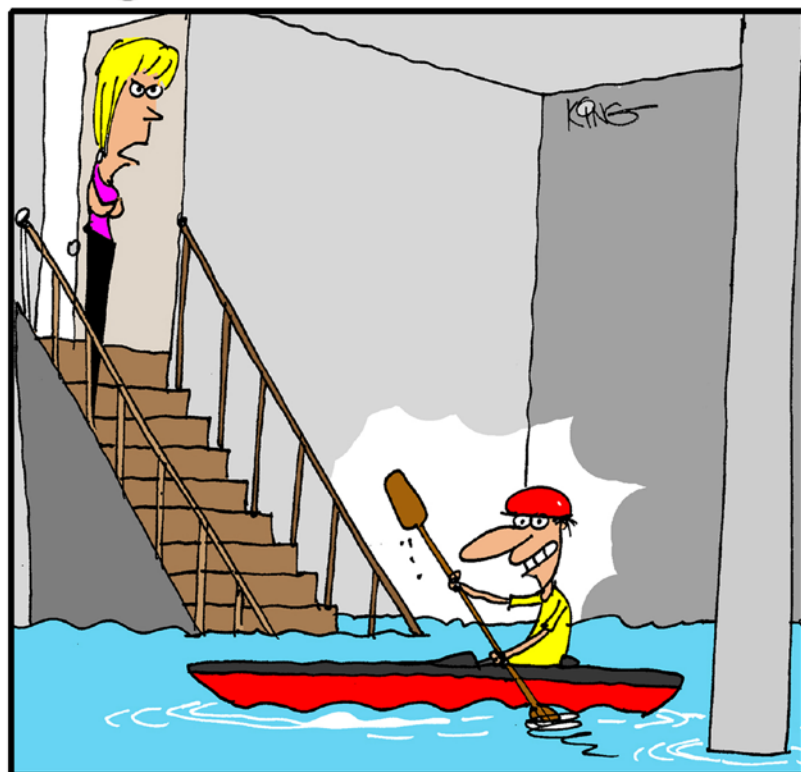
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