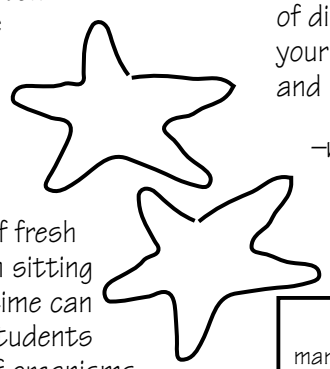
cannot possibly be replaced without damaging the organisms underneath (not to mention the physical harm that can also befall the "lumbering giant").

Hey, a hermit crab—can I take it home?

Popular tide walk beaches will be quickly wiped out if everyone collects. So unless you have a specific purpose to collect specimens, DON'T remove critters from their homes. I find kids understand and cooperate when it is explained that anything they remove from the beach will die.

Show children how to examine critters where they find them and handle the animals as little as possible. Explain to your students that moving organisms from one tidal zone to another can mean a death sentence (for the animal, not the child) because the animal might be removed from its food source and exposed to a potentially hostile environment not of the animal's choosing. Explain, for example, that prying a sea star off a rock can rip off the animal's tube feet, causing injury that could lead to the animal's death.



Placing specimens in a bucket of fresh sea water (not water that has been sitting in the sun for an hour) for a short time can allow close observation by several students and increase the viewing splendor of organisms like nudibranchs. But make sure the kids understand that most organisms they handle or keep in buckets too long are likely to die. If you must retain the animals for a short time, make sure you cover them with moist seaweed to protect them from the sun. And be certain that all animals are returned to the exact location where they were found.

Let's dig for peanut worms!

If you dig a hole, fill it back in with the mud you removed. Leaving piles of mud or sand on the beach may kill small clams or animals whose burrows no longer reach the surface. Also, burrowing animals concealed in your dugout "tailings" may float away or die when the tide returns.

Conclusion

Tide pooling and beach walking are becoming more popular every year. But this valuable learning experience also channels tremendous amounts of activity into relatively minute, fragile areas. Respect for the natural environment is essential. But also keep in mind that children do not deserve to have their curiosity squelched by a litany of DO NOT rules. Share your concerns with them, explain the consequences, redirect their energy, and above all, set a good example.

Minimizing the impact of your beach walks will ensure that there will always be exciting moments of discovery as you and your students zip into your hooded sweatshirts, pick up your buckets, and head to the beach.

–written by Madelyn Yerden-Walker

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University of Alaska Fairbanks
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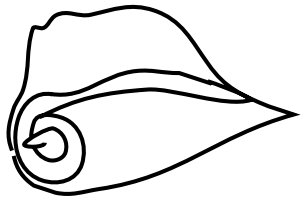
Beachwalk

Beachwalk
Beachwalk

Is there anything finer than being on a beach at low tide, your hooded sweatshirt zipped tightly, your sleeves pushed up and a bucket in your hand?

Yes. . .



Coming back the next week, next month, or next year and experiencing that same fine feeling as you explore that fragile and fascinating band of beachfront property called the intertidal.

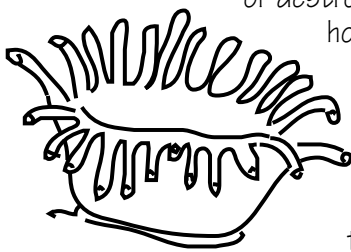
Few things excite kids more than a beach walk. The event can stir incredible curiosity and enthusiasm which a teacher can seize as a teachable moment. But if not channeled wisely, that same energy can be the fuel that ignites a day of shoreside mayhem.

There is a fine line between what constitutes a teachable moment and chaos. After being on beaches with hundreds of kids, I'd like to share some tips for maximizing the teachable moment and minimizing the mayhem that can have a disastrous effect on the intertidal life of highuse, rocky beaches.

Here's my list of potential trouble spots and how you can constructively channel the energy of your students.

It's the beach—head for the surf!

Before your students make a beeline to the surf, make sure they are aware of good conservation practices. They should understand that all the creatures on the rocky shores are alive and occupy a very specific spot or niche that is at the right exposure to waves, sun, and food. Impress upon your charges that they are really visiting the homes of other animals, and great care must be taken to come and go without hurting the animals or destroying the animals' homes.



At low tide a narrow ribbon of the ocean's bottom is briefly revealed. During big low tides, a three to four foot wide swath of ocean floor, home to some of the world's most unique creatures, is laid open to prying eyes for only a matter of hours each year.

So take a moment to ask the children to examine the story "written" on the beach. Lines on the beach can tell of fierce storms, nearbeach activities, and the movement of tides. This beach side pause also helps to contain the childrens' initial burst of energy and gives you a chance to talk about safety—of the kids and of the animals that live in the intertidal.

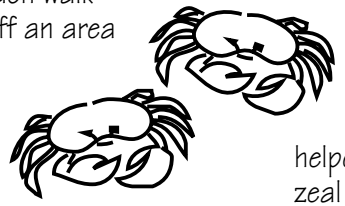
You *can walk on the beach,* I'm *walking in the water!*

Walking in the water is fun. But explain to the kids that running in the intertidal or splashing through a tide pool can be hazardous to their health as well as the health of the critters whose homes you are visiting. Tell the kids that you have never met a nonslip seaweed, and that a misstep might crunch an urchin or squash a crab, destroying years of growth. And stirring up sediments will send critters quickly into hiding. Is all that what they really want?

Bet I can throw a rock farther than you!

Who hasn't done it? The problem with rock throwing on a tide walk is not limited to stirring up sediments. Each time you pick up a rock, you could be evicting intertidal organisms from their homes. With large groups it's easy for rockskipping to run amok and become a safety hazard.

Nobody likes to be a spoil sport, so conduct a rockskipping contest after the beach walk when the tide has come in. Mark off an area and supervise the activity.



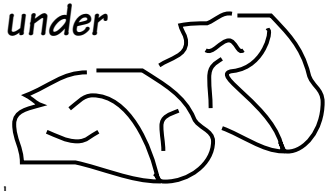
Cool—listen to it crunch under my feet!

That's not crunching, that's the sound of mussels and barnacles screaming as you walk across their beds. Mussels and barnacles, despite their "commonality," are important members of the intertidal. Help children examine the living quarters mussels provide for other creatures.

Show students how to place their feet when they walk through the intertidal. Show them how they can walk in the footsteps of others and minimize damage. Try to walk on bare rocks or on patches of sand or mud.

Make sure the children realize that if seabirds are frightened from their nests, predators such as sea gulls may quickly move in to feast on unattended eggs and chicks. And if there are seals or sea lions around, let the kids know that moving too close to the animals can frighten the critters. If repeatedly harrassed, the marine mammals may abandon their favorite resting places.

Let's see what's under this rock!



Ah, the essence of beach walking. It doesn't take long for kids to catch on to where the action is. Show them how to check out crevices and ledges. If that fails to deter them (and it probably will) *show* kids how to pick up a rock and examine the inhabitants without endangering the little beach residents. Have them note the position of the rock before you turn it over. Gently lower the rock back into its original position, to avoid crushing critters that only moments before delighted you. I compare poorly done "rock peeping" to a giant that rips the roof off your house and isn't considerate enough to put it back.

And be vigilant of adult chaperones and helpers. Too often they seem to get swept up in a zeal to move rocks of increasingly larger proportion. In time, the rocks become so large that they