

ALASKA

# Guidelines

[GLASS COPY ONLY]

VOL. 1, NO. 9

A University of Alaska Sea Grant Publication for Alaska Schools

MAY, 1979



The great annual fly-back has begun. From wintering grounds that span six continents, millions of migratory birds are making their way back to their vast summer nesting areas in Alaska's coastal and river valley regions. For many, it is an amazing journey.

Up from New Zealand and the islands of the South Pacific comes the stately golden plover, making the last leg of its flight non-stop from Hawaii.

The Arctic tern checks in after a 25,000-mile round trip from Antarctica. And the graceful little Bonaparte's gull, smallest of Alaska's gulls, will pause to play around Southeast Alaska's glaciers after a 10,000-mile hop from the tip of South America.

Flapping along nearly a mile aloft at speeds up to 50 miles an hour, the whistling swan crosses the continent from Chesapeake Bay. And swarming

in from Mexico to Mississippi and all points between come ducks, geese and waterbirds of every sort and size.

As the ice melts from Alaska's rivers, ponds and potholes, they will follow the break-up until each finds a nesting place to its liking. And the North will become a great quacking, honking, screeching, chirping, feathery nursery.

# ALASKA'S MIGRATORY BIRDS



To some 12 million ducks, over a million geese, about 70,000 swans and countless waterbirds, Alaska is "home." Its 110,000 square miles of marshlands, muskeg, tundra, river bottoms and deltas — one-fifth of the state's total land area — make it one of the most important breeding areas in the Western Hemisphere.

The birds begin to arrive in mid-April, singly or in pairs or in great sky-filling flocks. Each species seeks out its favorite nesting habitat, and there is something for everybody (*see map*).

The broad flat delta region of the Yukon and Kuskokwim rivers is unmatched for its size in the production of ducks, geese and swans. Some of them, including the cackling goose of the Pacific flyway and the emperor goose, nest here and nowhere else.

Eider ducks and pintails flock to the cool coastal plains of the Arctic slope. The great Yukon and Minto flats draw masses of ducks, geese and swans, including the once endangered trumpeter swan, now building back in Alaska's sheltered environment.

Tidal marshes and wetlands from

the Southeast Panhandle to the Alaska Peninsula come alive with waterfowl. And the rocky cliffs of the Aleutian Islands provide nesting crannies for the sea birds, who spend the rest of their lives on the water.

From the very beginning of the short Alaska summer, there is a feeling of hurry, hurry, hurry. Mallards and pintails are among the first waterfowl to arrive on the breeding grounds, and they waste no time in settling in.

Territory is established. Nests are built of dried plants, grass and downy feathers. Six to 12 eggs are laid at the rate of one a day, and the hen settles down to tend the nest. After about four weeks the ducklings hatch out. Within hours they will be paddling around in the water, and less than two months later they will be able to fly.

Besides raising their young, the adults have another important function to perform. All birds molt (shed their feathers) at least once a year. For some, this molt is gradual, with new feathers replacing the old ones in stages.

But for ducks, geese and swans, the molt is made in the short span of about a month. During this period

they are unable to fly and are especially vulnerable to predators, including foxes, wolves, bears, otter and, of course, man.

The drakes (males) usually molt while the hen is setting on the nest or tending her brood. After the young have learned to take care of themselves, it is the mother's turn to molt. And by the time she is able to fly again, the summer will nearly be over.

Throughout the northern nesting area, the same pattern is repeated. But starting in August, with new plumage and new families, the birds will be on their way again.

Many will flock to staging areas, like Izembek Lagoon north of Cold Bay on the Alaska Peninsula where more than half a million ducks and geese may gather at one time before heading south. Others will fan out into the four great migratory routes of North America: the Pacific, Central, Mississippi and Atlantic flyways. And the lonely travelers will make their long return trips to the far corners of the world.

Not all will leave Alaska. The emperor goose, Alaska's "own," rarely strays farther south than the Aleutian Islands. Huge flocks of eider ducks from the Arctic will settle in the southern Bering Sea. And thousands of other ducks and geese will winter in the ice-free bays and rivers along the north Gulf coast and into Southeast Alaska.

Even though many of these birds are year-round residents of Alaska, they are classified as "migratory" under international treaty agreements with Canada, Mexico, Japan and the U.S.S.R. These treaties are designed primarily to protect the birds during their nesting periods and to control the harvest on their far-flung migration routes.



Hunting seasons may be set within certain time limits. But since 1916, when the original treaty was signed with Canada, all hunting has been banned between March 10 and September 1 of each year.

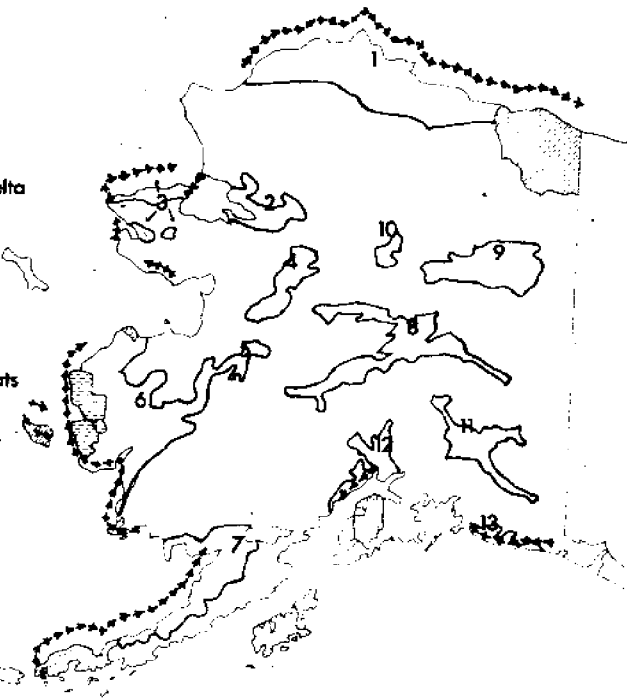
That means, of course, that when hunting is allowed in arctic and sub-arctic regions, most of the ducks and geese are somewhere else. And the law has been deeply resented (and often ignored) by subsistence hunters of the north who traditionally had harvested the birds and their eggs for food (*see box*).

## LEGEND

### Nesting Areas

- 1 Arctic Slope
- 2 Kotzebue Sound
- 3 Seward Peninsula
- 4 Koyukuk
- 5 Innoko
- 6 Yukon-Kuskokwim Delta
- 7 Bristol Bay
- 8 Tanana-Kuskokwim
- 9 Yukon Flats
- 10 Kanuti
- 11 Nelchina
- 12 Kenai-Susitna
- 13 Copper Delta

-  Important Migrating Habitats
-  National Wildlife Refuges



Maps on pages 1-2 adapted from "To Have and To Hold, Alaska's Migratory Birds," U.S. Fish and Wildlife Service, 1971. By permission.

Now, however, changes are in the works that will take these needs into consideration. Last January, United States and Canadian officials agreed on an amendment to the original treaty that would permit subsistence hunting of waterfowl outside normal sports hunting seasons. But before the amendment goes into effect, it must be approved by the U.S. Senate, and then added to the treaties with Mexico and Japan.

"How long will that take?" *Alaska Tidelines* asked Wilbur N. Ladd, Jr., Migratory Bird Program coordinator for the U.S. Fish and Wildlife Service.

"Our target date is spring of 1980 — but that may be a little optimistic," he said.

"You see," he explained, "each of the treaties is different.

"Under the original treaty with Canada, Alaska's Indians and Eskimos were allowed to take only scoters and a few sea birds, such as auklets and murre, and their eggs for food. But then along came the 1936 treaty with Mexico which allowed no subsistence hunting at all.

"The treaty with Japan in 1972 provided for a limited subsistence take by Indians and Eskimos — but it didn't mention the Aleut people, and it excluded non-Native people. It also required that seasons be set 'to avoid principal nesting periods' — which left us about where we started.

"Finally, the treaty with the Soviet Union in 1976 tried to take care of past mistakes. It gives the Secretary of the Interior authority to issue regulations permitting subsistence hunting by both Natives and non-Natives, but only as long as migratory bird stocks are maintained.

"So, we'll have to start at Ground Zero with Mexico and Japan, and it's going to take a while to pull this all together. But once agreement is reached, we will be able to set reasonable rules that will meet the needs of subsistence hunters and still protect the migratory birds. We can't do that now because we can't regulate something that's officially illegal."

"Is there much of that kind of hunting going on now?" *Tidelines* asked.

"It's hard to tell just how much," he said. "Various reports indicate an annual subsistence take in Alaska of about 250,000 birds during the middle to late 1960s. That would amount to about one or two percent of the



Drawing by Milo Minnock

*Since earliest times, the spring arrival of ducks and geese was a welcome sight to Alaska's Native people. Taking the eggs and birds for food was as natural as fishing for the migratory salmon that returned to the rivers and streams.*

*It meant fresh eggs after a long cold winter of seal oil and dried fish and meat. And driving fat ducks and geese into nets during their flightless molting stage was certainly a lot easier than trying to wing them with bow and ivory-tipped arrows.*

*Here, Milo Minnock of Bethel tells the story of the old ways:*

A long time ago, say some 100 years ago or so, people would go egg gathering in the month of June, out on the flats along the west shorelines of Alaska. People would save many of these eggs in underground holes, covered with mud and moss. They would stake these holes so they would know where to find them.

In this way the eggs would stay fresh all summer. Then the people would come back for the eggs in September or October, just when the weather turns cold.

Also in the month of July when all waterfowl can't fly, Eskimos would chase these birds, like ducks

and geese, by the thousands. They would sometimes put up any kind of nets at the ends of sandbars. Also they would leave some people by the nets.

Then when all birds enter the nets by the thousands, people would use clubs. Every able person would help kill these for food. Some would stay and make camp and cut up the ducks and geese and dry them or smoke them. People would also save the duck and goose skins for parkies.

This story is based on old-time Eskimos.

— From "Kalikaq Yugnek," Vol. IV, No. 2, Spring, 1978. © Kalikaq Yugnek, Inc., Bethel Regional High School, Bethel, AK, 99559. Reprinted by permission.

total migratory bird harvest by U.S. sports hunters. How that figure compares with what's going on today is anybody's guess.

"The problem is that there's a real biological reason for protecting the birds on their breeding grounds. Birds are very vulnerable at that time, and populations can be damaged very quickly.

"So this spring a survey will be conducted on the Yukon-Kuskokwim Delta to begin to assess the present subsistence harvest of migratory birds. It will be made in cooperation with Nunam Kitlutsisti, the environmental

branch of the Association of Village Council Presidents. What we learn will help provide the basis for good management policy.

"Then the sooner we can get the treaties changed, the better. The point is, the subsistence hunters don't want to do the wrong thing. They don't want to break the law. And they don't want the bird population to decline either. But they get just as hungry for fresh fat goose as anybody else."

**READ ON:**

"Birds of Alaska," by Ira N. Gabrielson and Frederick A. Lincoln, The Wildlife Management Institute, 1959.

# How to make a fish print

If you want to keep a record of the interesting fish you catch this summer or the beautiful things you find along the beach, try your hand at the Japanese art of *gyotaku* (*gyo*=fish + *taku*=rubbing).

For more than 100 years, fish printing has been used by Japanese fishermen as a quick easy way to record their catches. But you can also make prints of shells, fossils, rocks, seaweed, sea grass and other plants.

Fish should be very fresh. You can clean the fish before making a print, but be careful not to cut the head, tail, fins, and scales. (Small flatfish, such as the starry flounder, or fish with rough scales, like the perch, are good for starters.)

## YOU WILL ALSO NEED:

- Old newspapers
- Plastic modeling clay (or a stiff bread dough).
- Straight pins (the shorter the better).
- Small paint brush.
- Water-based ink (or you might try food coloring).
- Paper that absorbs moisture, such as newsprint or paper towels (the smoothest you can get). Rice paper, which the Japanese use, is best, but it is expensive and hard to find.

## How to do it:

**1.** Clean the fish carefully with soap and water to get all the slime off. Dry it well, trying not to rub off any scales. If the fish has been gutted, stuff it with paper towels to hold its shape.



**2.** Place the fish on newspapers. Spread out the fins and tail over wads of clay (or dough) and pin them down. (Push the pins in as far as you can so they won't snag the paper.)



more...



# Gyotaku

(gee-oh-TAH-koo)

Clean off the fish and cook it for dinner!

**3.** Brush on a thin coat of ink. Stroke it on first from head to tail. Then make some final strokes from tail to head to catch the ink under the edges of the scales.



**4.** Carefully place the paper towel over the inked fish. (If you are using newsprint or rice paper, first dampen the paper slightly with a sponge or wet rag.) Try not to slide the paper around.



**5.** Use your fingers to gently press the paper over the entire area of the fish, including the fins and tail.

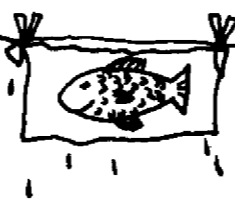


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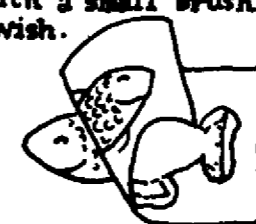
**8.** Label your print with the name of the fish or specimen, and the date, time and place where it was caught or collected.

Cartoon Fish  
3 P.M.  
Running River  
Today

**7.** Hang it up and let it dry completely.



**6.** Remove the paper and take a look. If you've missed some spots, re-ink the fish and try again. Paint in the eye with a small brush if you wish.



Adapted from "Gyotaku--Japanese Fish Printing," by C.M. Dewees, University of California (Davis) Sea Grant Program

Tricia Chen

# COLD WATER

## SAFETY TIPS

Too bad Alaska's waters aren't as safe for people as they are for ducks and geese. Anything but.

The problem is that the majority of Alaskans live near its coasts and rivers, and they spend a lot of time in and around boats. But because our waters are so cold, many Alaskans haven't had the chance to learn to swim. And those frigid waters present a special hazard of their own.

All in all, water safety rules for Alaska require a special twist. So here are some tips for both swimmers and non-swimmers to help see you safely through the summer.

### When You Want to Go Swimming

- Never go swimming alone — never.
- Check the water temperature before diving in. Even during the summer Alaska's waters don't warm up all that much. A sudden plunge into very cold water can come as a jolting, paralyzing shock.
- Don't commit yourself to a swim of any distance, such as from a boat or float to the shore. In cold water, loss of body heat, called hypothermia (HIGH-po-THER-me-uh) can cut the distance you figure you can swim about in half. And hypothermia can be just as deadly as drowning.

### When You Don't Want to Go Swimming

Many accidents occur because of carelessness around small boats. Some of these rules may sound like old stuff to you. But it's a good time to review them — just to be on the safe side.

- Know the right way to get into and out of a boat. Step as close to the centerboard as possible, at or near amidships, and keep your weight low. Balance the boat by grasping the sides. Reverse the procedure for getting out.
- Be sure the load is properly balanced and that the boat is not over-

loaded. It should have at least six inches of freeboard (distance from the top of the side of the boat to the water) where you are sure of calm water — more in choppy water.

- Don't stand up or move around unnecessarily in a moving boat. If you must change positions, keep your weight low and in the center of the boat.

- Alaska law requires that *every* boat (from canoes and kayaks on up) carry a personal flotation device (PFD) for *each* person on board. Make sure the proper number of PFDs are in the boat and are readily available for use.

(For boats under 16 feet, these PFDs may be either wearable flotation jackets or flotation cushions or buoys that are designed to be thrown. Boats 16 feet and over must carry one wearable PFD for every person on board *plus* at least one throwable PFD.)

### If You Go In Anyway

If your boat swamps or overturns — and there is no help around — how long can you survive in cold water? It depends on what you do.

- Most boats will float, even when swamped or capsized. Stay with it.
- Get as far out of the water as you can. At least, keep your head out of water and cover it if possible. Water absorbs your body heat much faster than air, and 50 percent of your body heat is lost through your head.
- Keep as still as possible. Moving around won't help you keep warm in the water — just the opposite. Swimming or treading water makes you cool down about 35 percent faster.
- Wearing a PFD in this situation will almost double your chances for survival. If you can't get out of the water and onto the boat, it will keep you afloat and your head out of wa-

ter. To save body heat, keep your arms close to your sides. If there are several people in the water, body heat can be conserved by huddling together.

- Don't try to swim to shore unless there is absolutely no chance of rescue and you are absolutely sure you can make it. If there is a current (tidal or river), don't "buck" it. Swim diagonally across the current and with its flow, even though it means coming ashore some distance from where you want to.

### Non-Swimmers to the Rescue

What if a friend falls into deep water from a dock, boat or riverbank. He can't swim, and neither can you. There are a number of ways you can help if you keep your cool and act quickly.

- *Reaching-Out Rescues:* Lie down flat and reach out to grasp his wrist. If he's too far away, slip into the water, keeping a good hold on some hand-grip like a ladder or rail, and extend your whole body length so that the victim can grasp your legs and be drawn to safety. You can also extend your reach with an oar, tree branch, or even a fishing pole.

- *Floating Assists:* Push out a log, plank, raft or anything you can find along the shore that floats which the victim can hang onto and kick his way back to safety.

- *Throwing Assists:* Naturally you would throw out a ring buoy of flotation at once. But if one isn't around, use your imagination. Anything that floats will provide support: a plastic gallon jug, a spare tire, a basketball, a picnic chest, even a large thermos bottle. If possible attach a rope to it first so that you can pull the victim back. But don't waste time. As long as he is afloat, you can figure out a way to get him in.

**Remember:** If you can't swim, *don't* jump into the water yourself. You can do a lot more good from the shore.

# To the Teacher:

We know it's a little early to be thinking about next fall. But if you can place your advance order for *Alaska Tidelines* now, it will help us with our planning for the 1979-1980 school year. Adjustments may be made in your order after fall enrollment, or at any time during the school year, by contacting *Alaska Tidelines* at the address below.

Meanwhile, thank you so much for your support during our first year of publication. We hope you'll take part in the questionnaire on page 8, and join your students in giving us a "grade." Your ideas, suggestions and criticisms are most welcome, and will help us make *Alaska Tidelines* more useful in your classrooms.

If you know of other teachers who might be interested in this publication, please pass this form along.

*Alaska Tidelines*, developed by the University of Alaska Sea Grant Program for use in Alaska schools, is published once a month from September through May, with the December-January issues combined. It is distributed free to all schools or individuals requesting it.

Teacher: \_\_\_\_\_

Grade: \_\_\_\_\_

Subject: \_\_\_\_\_

No. of copies needed (in multiples of 10): \_\_\_\_\_

School: \_\_\_\_\_

School address: \_\_\_\_\_

City & Zip Code: \_\_\_\_\_

Total number of copies for school \_\_\_\_\_

Send to:

*Alaska Tidelines*  
Alaska Sea Grant Program  
University of Alaska  
Fairbanks, Alaska 99701  
(907) 479-7086

Comments: \_\_\_\_\_

## Fuss and Feathers

Starred (\*) words are based on information in this issue.

### ACROSS

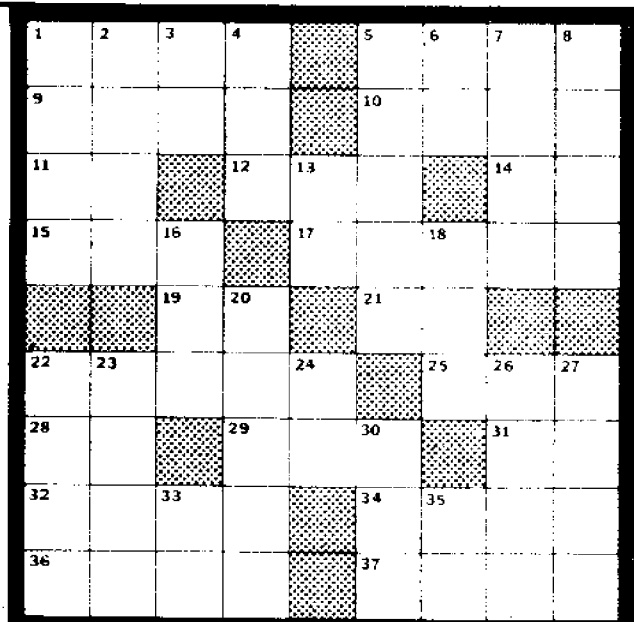
- \*1. Alaska is one of the most important nesting areas in the Western Hemisphere for water \_\_\_\_\_.
- \*5. A species of (1 across) most popular with hunters.
- 9. Preposition meaning to go in.
- \*10. "Never swim alone" is a good safety \_\_\_\_\_.
- 11. South Carolina (abbr.).
- \*12. The rocky cliffs of the Aleutian Islands provide nesting crannies for \_\_\_\_\_ birds.
- 14. A sea-going kind of "yes," as in "\_\_\_\_\_, Sir!"
- \*15. Female of (5 across).
- \*17. Alaska's Native people once made parkas and other clothing out of bird \_\_\_\_\_.
- 19. Old style (abbr.).
- \*21. The trumpeter swan once was considered an \_\_\_\_\_ dangerous species.
- \*22. The \_\_\_\_\_ Flats are one of the great nesting areas in Interior Alaska.
- \*25. A must for sports hunters.
- 28. Overdone (abbr.).
- 29. To make a mistake.
- 31. Fifth note of the musical scale.
- 32. Girl's name.

- 34. Word meaning "in addition" or "too."

- \*36. Among the first ducks to nest in the spring is the pin-  
\_\_\_\_\_.
- \*37. The longest yearly migration to and from Alaska is made by the Arctic \_\_\_\_\_.

### DOWN

- \*1. The word "gyo," as in the Japanese art of "gyotaku," means \_\_\_\_\_.
- \*2. All birds molt at least \_\_\_\_\_ a year.
- 3. Weight (abbr.).
- 4. California city, \_\_\_\_\_ Angeles.
- \*5. Male of (5 across).
- 6. Un-uh (abbr.).
- 7. A family group or tribe (especially Scottish).
- 8. What you unlock things with.
- 13. Add these letters to make a word plural.
- 16. Negative, as in \_\_\_\_\_ sense.
- 18. You hear a lot of quack \_\_\_\_\_, honk \_\_\_\_\_, and chirp \_\_\_\_\_ on the waterfowl breeding grounds.
- 20. Nesting waterfowl must be wary of predators trying to \_\_\_\_\_ their eggs.
- 22. To shed feathers.
- 23. A thought, like a bright \_\_\_\_\_.



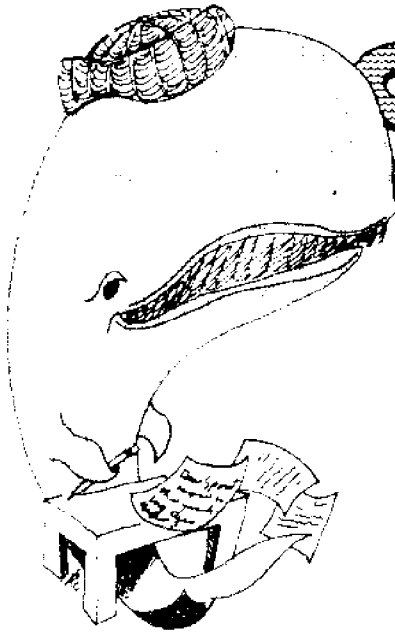
- 26. The most recent migratory bird treaty the U.S. has signed was with the \_\_\_\_\_.
- 27. Midday, at 12 o'clock.
- 30. Short for muskrat.
- 33. Northern Ireland (abbr.).
- 35. Left end, as in football (abbr.)

### Answers in September issue

NOTE: As you've all figured out by now, *Tidelines* goofed. The first clue in the April X-Word should have been pink \_\_\_\_\_, not \_\_\_\_\_ neck. Sorry about that.)



April X-Word Answers



# SPOUT

This issue marks the end of the first year's publication of *Alaska Tidelines*. We hope you have enjoyed it as much as the University of Alaska Sea Grant Program has enjoyed bringing it to you.

But before you take off for summer vacation, do us a favor. We want to know what you think of *Alaska Tidelines* so far, and what you'd like to see in it next year.

So fill in the blanks (be frank!). Then mail this questionnaire to the address at the bottom of the page. (Or perhaps your teacher will return it with the *Tidelines* class order for next year, which appears on page 7.)

Thanks for your help! Have a safe, happy summer, and we'll see you in the fall.

Your Name (optional): \_\_\_\_\_

Grade: \_\_\_\_\_

School: \_\_\_\_\_

School Mailing Address: \_\_\_\_\_

## I. FIRST, YOU BE THE CRITIC AND GIVE US A GRADE:

1. What do you think of *Alaska Tidelines*?

- Like it a lot.
- It's OK.
- Don't like it.

2. How's the reading level?
- Too hard.
  - Too easy.
  - About right.
3. Which issues or articles did you find most interesting? (Rate them: A - excellent, B - good, C - so-so, D - poor, F - yukk).
- Aquaculture.
  - Iliamna Monster.
  - Alaska's Tricky Tides (plus Captain Cook).
  - Life Above and Below the Ice (polar bears and burbot).
  - The Whales Return (TV News Special).
  - Clams and PSP.
  - Alaska's Migratory Birds (this issue).
4. What features in *Tidelines* do you like best? (Rate them A-F again).
- Legends and history.
  - Career Corner.
  - Spout column.
  - Crossword puzzle.
  - "How-to" features (i.e., read a Tide Table, hunt a polar bear, make a waterdrop microscope, etc.)

## II. NOW, YOU BE THE EDITOR:

1. What "theme" topics would you put in *Alaska Tidelines* next year if you were the editor? (Here are a few ideas to get you started. Rate them A-F - and then add some suggestions of your own.)

- Salmon: How do you catch them?
- Oil vs. Fisheries (Perils of Pollution).
- Alaska's Watery Awfuls: Mosquitoes and Muskeg.
- How to Survive on a Beach.

(Your Suggestions)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. Which of Alaska's marine animals would you like to learn more about? (Circle your choices, and then add more of your own suggestions.)

- Walrus Octopus Jelly fish Seals  
King crab Pollock Sea otter  
Herring Tom cod Sea urchins  
(Other) \_\_\_\_\_

## III. FINALLY, WOULD YOU BE AN ALASKA TIDELINES REPORTER?

You know your corner of Alaska much better than the rest of us do, and we'd like to hear about it. Check below if you would be interested in taking part in a:

- Marine photography contest (boats, fish, water birds, shells, fishing gear, water animals (moose?), whatever).
- "How We Cook It" recipe exchange on our featured fish (if we let you know what it is in advance).
- "Where We Live" picture story series about your city or village. This would probably be a class project. It might include photographs of local landmarks (like your city hall or school), community leaders, people working or having fun, sports contests **PLUS** a short article about your community, its weather, location, history (How did it get its name?), population, etc.

And don't forget to send your questions about Alaska's water world, jokes, puzzles and opinions to Spout's column all year long!

Mail this questionnaire (or the same information on another sheet of paper) to:

**Alaska Tidelines**  
c/o Alaska Sea Grant Program  
University of Alaska  
Fairbanks, AK. 99701

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Editor, Virginia Sims; Managing Editor, Fran Sweet; Artists, Ann C. Schell and Tricia Olsen; Advisor, Dr. Richard S. Lee. Address all communications to: **Alaska Tidelines**, Communications Office, Alaska Sea Grant Program, University of Alaska, Fairbanks, AK 99701. The University of Alaska provides equal educational and employment opportunities. © Copyright 1978.