

The *Young Naturalist*



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The Wild Horses of Sable Island

For several hundred years horses have been known to roam wild on Sable Island. Where did they come from? How do they survive?

Sable Island is not like the islands you may know in Muskoka, the St. Lawrence or any of our fresh water lakes. It is a narrow strip of sand about 25 miles long and a mile wide that lies far out in the Atlantic Ocean. Few people have lived on the island and it is seldom visited. Situated one hundred miles off the coast of Nova Scotia, it is surrounded much of the time by fog, beaten by bitter winds and wild gales; it has no trees for shelter and no harbour for boats. The highest parts are just sandy ridges or long narrow hills about 60 feet high and the only growth is a variety of grasses, a mat of shrubs about a foot high, and other small plants. One small pool of fresh water lies near the middle of the island.

It is believed that the first horses on Sable Island came from ships wrecked

on the nearby sandy shoals during wild storms several hundred years ago. They swam or were washed ashore, where they found at least some grass to graze and a little shelter from the wind behind the sandy hillocks.

As the horses multiplied, to as many as 300 in some years, they wandered over the island in gangs. A gang consisted of a few mares, colts and young horses, led by a stallion. When the young horses attained their full growth they would be turned out by the leader of the gang, to wander about the island until they managed to steal a few mares away from some of the others and form new gangs for themselves.

These horses were extremely hardy, refusing the shelter of a stable and shunning the society of man. In severe weather they gathered together in hollows between the sandhills, arranging themselves in regular order, colts in the centre, the older ones next and the master horse in the most exposed position

of all. Each spring some of the old or infirm were found to have died of hunger or cold. Today, the dwindling food supply causes doubt that the horses can survive for many years.

Other visitors to the island in centuries past were shipwrecked fishermen, explorers or soldiers on their way to and from Europe and America. Stories are told of pirates who plundered the wrecked ships and robbed the survivors.

Plundering went on for years and the wild horses may have provided these people with transportation and even food. Then government authorities sent several families to live on the island and establish a life-saving station there. Their task was to get rid of the pirates and organize a rescue system for survivors of shipwrecks. They took supplies of lumber, tools, nails, seeds and some tame horses to help with their work.

The only way to travel on Sable Island at that time was on foot or on

The first horses on Sable probably came from ships wrecked on the island.

Photograph by D. R. Gunn

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How To Take Good Nature Photographs

Part 2 (second of a series)

Some Easy Subjects

Lots of things that you may want to photograph are "easy" subjects. By that I mean subjects which don't run away or otherwise avoid you! Let's look at a few kinds and consider how to photograph them well.

1. Beautiful Natural Scenes

When you see a beautiful natural scene, with a waterfall or a lovely hill or a tree on a lakeshore, try to take its picture. Look through your camera viewfinder and see if you can "find" a good enough picture to take. This requires lots of practice, so go ahead and shoot! Later, when you see the print or color slide, ask yourself if the picture is different from what you expected. Keep only your good pictures to show to other people. You can get a reputation as a good nature photographer by *never* showing your bad pictures to anyone!

2. Rocks and Other Geological

Features

There are lots of rock cuts along highways where you can take very good pictures. Try to avoid being hit by traffic while doing so! Notice that the sunlight shows patterns in the rocks very differently at different times of the day. A partly side-lit effect is often desirable. Remember that if you want to show details you may have to take a close-up. Make a note of the subject of each picture as soon as you take it.

Many larger land-forms such as hills and valleys are worth trying to photograph. Take a set of pictures near your home, arranged so that a stranger could know the surrounding area just by viewing them.

Various kinds of rocks are fascinating to photograph, especially in color. Flash may be needed for close-ups or for rocks in dark places. You might try to take as many different rocks as you can find and identify.

3. Trees

Trees are delightful photographic subjects. They give you lots of chances to take good pictures. You might try to take clear pictures of many kinds of trees; the result may be a very useful set of pictures. Or you might take pictures of one tree through a whole year's growth, try-



Use the view finder on your camera to compose the most pleasing arrangement that you can find of trees, hills, and other natural objects in a scene.

ing to show the important stages in that year. This calls for good planning, then all you have to do is finish the project! Your pictures will really interest lots of people if you do them well. Don't forget to take pictures of your tree in the rain, and with snow on it, or covered with ice after an ice-storm.

Another approach might be to take several pictures of different specimens of one kind of tree at different ages. Try to find a very, very old tree and a very, very young one of the same kind. A close-up picture of the bark, leaves or needles and cones would add a lot of interest. Maybe you can find one tree with a perfect shape and another one of the same kind but gnarled, twisted, with real "character".

If you are taking color slides be sure to get the fall colors at their best. Try to show contrasting colors close together, such as red leaves near an evergreen. You can have fun looking for the best place from which to take a picture. When you are walking or riding around, keep your eyes peeled for good spots to return to in the fall for picture taking.

For all your tree pictures, look carefully at the background to be sure your tree stands out well. An interesting cloud or sky may be worth waiting for, to add that extra "snap" to your photograph.

In part 3 of this series you will learn how to take good photographs of birds and mammals.

MARTIN H. EDWARDS

HORSES — from Page 1

horseback. The fifty miles of coastline had to be patrolled every morning and evening in the search for victims of shipwreck. Often it was so foggy one could not tell whether a ship had foundered. When some bits of wreckage were found on the shore, a vigil would be kept for survivors. These survivors then had to be fed, clothed and cared for until the weather permitted a ship to take them to the mainland.

It is believed that some of the wild horses now on the Island came originally from New England. Some are said to resemble the wild horses of Tartary. Occasionally some horses were tamed for riding and imported stallions used to improve the stock.

Through the years many other kinds of animal life found their way to Sable Island—goats, oxen, sheep, pigs, rabbits, rats, cats, dogs, chickens. Today only the horses remain, unless you count the wild birds that nest there or the light keeper's fine flock of chickens. Instead of pirates or the life-saving crews of other years, the inhabitants of the island are now the light keeper and weather station manager and their families, who with modern equipment continue faithfully to prevent loss of life on this storm-ridden speck in the ocean.

JOAN L. GUNN

Club News



In Hamilton members of the Junior Naturalists Club conducted the February meeting of the Senior Club and gave talks on various subjects. Keith Salisbury spoke on Redtailed Hawks, John Woodcock on his trip to Watkins Glen and the Genesee Valley, and Russel Kardos on bird banding and trapping. The Junior Club also prepared a number of exhibits which were on view — a collection of mammal and bird skulls, postage stamps showing birds, a collection of bird wings, and a selection of birds stuffed by club members. Some live birds were in attendance: a Saw-whet Owl, doves, a Crow, a Screech Owl, a Wood Duck and a Canada Goose! At the end of the evening the Ross Thomson Trophy was presented to the Junior sighting the greatest number of birds during the year. This year it went to

Russel Kardos, who saw 264 species. In second place was Gary Rousseau with 248 species, and third was John Woodcock with 241 species. In the “under 14” section, Ron Bryce saw 205 species and Jim Hunter, 180 species.

It was decided that future meetings of the Hamilton Junior Club will be held once a month from seven to eight p.m., before the Senior Club meetings.

Jim Reilly, of Hillcrest Public School in London, Ontario, writes that his Grade Six class has formed a Science Club. The first meeting was held on March 11, when Mary-Helen Lawrence was elected President, Billy Bryson Program Chairman and Diane Marshall Secretary. At its most recent meeting the club saw a film on wildflowers. Good luck to this newest Ontario club!

BARBARA WILKINS

The Oldest Stars in the Milky Way

Within our home galaxy, the Milky Way,* we find stars of all ages. Last month we discussed the Pleiades star cluster which is 160 million years old. We also said that the Sun began shining about 4½ billion years ago and that the oldest stars were formed 10 billion years ago. Many of these very old stars are members of star systems which we call ‘globular clusters’. There are several thousand clusters like the Pleiades in the Milky Way but only 121 globular clusters. Although few in number, each globular cluster contains many thousands of stars and the largest, such as Omega Centauri, may contain more than one million stars. The stars in a globular cluster are packed very closely together and, near the centres of these clusters, some stars actually may be touching one another!

The alternation of day and nights tells us that the Earth is rotating (spinning on its axis). Studies of other planets, the Sun, stars and galaxies suggest that all objects in the universe are probably rotating. A characteristic of a rotating

object is that it tends to be flattened. The diameter of the Earth, for example, is less when measured from the North Pole to the South Pole than when measured from one side of the Equator to the other.

Look carefully at the three photographs of globular clusters shown here. Do you think that they are rotating? M13 and M3 certainly seem to have a nearly perfect circular shape but notice that Omega Centauri appears to be slightly wider in one direction than the other. Omega Centauri is spinning but so slowly that we would need to wait several hundred years before seeing any changes in the positions of the stars in the cluster.

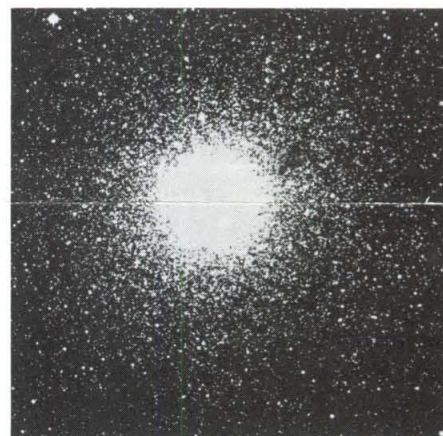
In spite of the large number of stars within each globular cluster, they are so far away that only a few can be seen with the naked eye. One of the brightest is M13 in the constellation Hercules. In late May and early June, Hercules is close to the zenith (the point directly overhead) in the early part of the evening. To the naked eye M13 appears as a

faint, fuzzy patch of light but, through a telescope, thousands of stars come into view. * see issue of November 1967.

DOUGLAS P. HUBE



Globular Cluster M13 in Hercules
Distance = 20,000 light years
= 120,000,000,000,-
000,000 miles.



Globular Cluster M3
Distance = 35,000 light years
Note the nearly perfect circular shape of the globular star clusters M13 and M3.



Omega Centauri
Notice that this globular star cluster is slightly wider in one direction than in the other.

WOODLORE

FOR THE NATURALIST

John Macfie

Canoe Safety

Keep centre of gravity low

The original canoe, the birch bark craft of the eastern Canadian Indian, had no seats. The paddler knelt or sat with legs outstretched on the bottom of the canoe. Although modern canoes are more stable, it is still necessary to keep the centre of gravity close to the water line. For this reason it is wise to load the heaviest gear on the bottom, and place lighter things on top. When there is no cargo, kneel on the bottom of the canoe and use the seat only as a hip rest. Think of the canoe in cross section as a wheel. If you sit on the seat, the wheel seems to want to rotate, and this makes steering difficult. The weight (you) should be in the bottom of the canoe.

Getting aboard

Never stand up in a canoe. Each person should get aboard one at a time, grasping both gunwales to distribute his weight evenly until he is kneeling astride the centre line. Be sure that you do not overload the canoe.

Rough water

Stay off wide expanses of water on windy days. The water often appears deceptively calm if you happen to be on the lee shore. Plan to cross a lake early in the morning when the wind is lightest. If you get caught in a blow, take the largest waves squarely on bow or stern. Avoid whitewater rapids until you have been taught how to run them by an experienced canoe-

man. And if your canoe does upset, hang onto it and "swim" it to the nearest shore. It can be worthwhile to practise upsets in a shallow swimming area; you might learn the trick of getting back into a swamped canoe.

Other safety rules

Wear light footwear, perhaps a moccasin that can be shed easily, rather than heavy boots. Life preservers are valuable insurance when water is cold or where large lakes must be crossed. If your canoe has flotation chambers make sure they are empty and the plugs tight (if they are the plugged type).

And finally, the ability to swim well is a vital part of canoeing!



CENTRE OF GRAVITY
LOW. CANOE IS STABLE.



CENTRE OF GRAVITY
HIGH. CANOE WANTS TO
ROTATE (UPSET).

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