

Nesting Time Activity

At the end of this activity you will be able to answer these questions:

1. Who spends more time on the nest, the female or the male Adelie Penguin?
2. Do all nesting adults spend the same amount of time brooding (time on the nest) and foraging (out looking for food)?
3. Why does the amount of time on the nest decreases as the season progresses?

Background information

Adelie penguins raise their chicks on bare land which has a supply of small rocks to build their nest with. The open ocean is usually many miles away at the beginning of the season and the Adelies must walk over the sea ice to reach the land when breeding time begins. As the season progresses the sea ice breaks out making the open ocean, and their food source much closer. At no time will the Adelie parents leave the eggs unguarded. Even a few minutes in the cold air of Antarctica and the eggs would freeze. Plus the watchful eyes of the predatory birds, Skuas, would quickly take advantage of any unguarded egg for a meal. When the chicks hatch there will always be a parent guarding the nest until the chicks are old enough to keep themselves warm by huddling together in groups called crèches.

Both parents have reduced their body's reserve in walking the distance across the sea ice to build the nests and lay the eggs. But always one must stay on the nest. This activity will allow you to chart how long each parent is on the nest, and how long they take on foraging trips. Each trip requires the penguin to walk back over the ice to the open ocean, feed and then returning to the nest.

Directions

Select a nesting pair from the Nest Check activity at penguinscience.com/education/nest_check. Everyday record in your field journal whether the female or the male is brooding the eggs or guarding the chicks. You will see that sometimes both adults are near the nest, record that as both nesting. Make up your own table or chart to record this data, or use the one below as an example.

Nest #8 Time on the nest for the female and the male.

NOV	18	19	20	21	22	23	24	25	26	27	28	29	30
FEMALE													
MALE													

DEC	1	2	2	3	4	5	6	7	8	9	10	11	12	13	14
FEMALE															
MALE															

KEY	On the nest	Foraging

Continue recording who is on the nest until both the adults are out foraging. At this point the chicks are able to fend for themselves against the Skuas and the cold by forming groups called crèches. The chicks demand a great deal of food during this time, so it requires both parents be out foraging together.

Data Analysis

1. Determine the number of days each parent was a) on the nest and b) out foraging. Create a visual way to share this information with your classmates. The above example is only one way. Be creative.
2. Compare your data with other members of your class who selected different breeding pairs. Are they the same? If they are different come up with some reasons why they are different.
3. In your groups answer the questions at the beginning of this activity.