Researchers have found that migrating animals use a variety of inner compasses to help them navigate.

Some steer by the position of the Sun.

Others navigate by the stars.

Some use the Sun as their guide during the day, and then switch to star aviation by night.

One study shows that the homing pigeon uses the Earth's magnetic fields as a guide in finding its way home, and there are indications that various other animals, from insects to mollusks, can also make use of magnetic compasses.

It is of course very useful for a migrating bird to be able to switch to a magnetic compass when clouds cover the Sun otherwise it would just have to land and wait for the Sun to come out again.

Even with the Sun or stars to steer by the problems of navigation are more complicated than they might seem at first.

For example a worker honeybee that has found a rich source of nectar and pollen flies rapidly home to the hive to report.

A naturalist has discovered that the bee scout delivers her report through a complicated dance in the hive, in which she tells the other workers not only how far a way the food is, but also what direction to fly in relation to the Sun.

But the Sun does not stay in one place all day.

As the workers start out to gather the food the Sun may already have changed its position in the sky somewhat.

In later trips during the day the Sun will seem to move farther and farther toward the west.

Yet the worker bees seem to have no trouble at all in finding the food source.

Their inner clocks tell them just where the Sun will be, and they change their course correspondingly.