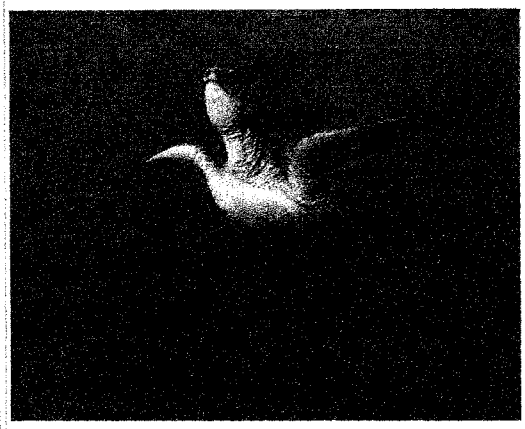

Figure 12–2 *Continental drift helped to explain a biological mystery: why green sea turtles living near the coast of Brazil lay their eggs on a distant island in the middle of the Atlantic Ocean. Long ago, before Africa and South America moved farther apart, this island was quite close to Brazil.*

The presence of *Glossopteris* fossils in the froz wastelands of Antarctica indicates that Anarctica' climate millions of years ago was far different fr the way it is today. Because the size and location landmasses have a powerful effect on climate, th suggests that Antarctica and the other continents have changed position.

How did *Glossopteris* develop on such widely s rated continents? Like Wegener, scientists today think that *Glossopteris* and many other organisms the distant past lived on a single landmass—Pan This landmass later split apart. The pieces of the broken landmass—today's continents—slowly drif away from one another, carrying their fossils witl them.

Evidence From Rocks

You have just read how fossils, which are loca within rocks, provide support for the theory of c nental drift. But fossils are not the only evidence continental drift. The rocks themselves indicate the continents have drifted.

One of the clearest sets of evidence is found the rocks of Africa and South America. When th continents are "pieced" together, rock formation Africa line up with matching ones in South Ame An ancient folded mountain chain that stretches across South Africa links up with an equally anci folded mountain chain in Argentina. Coal fields distinctive layers in Brazil line up with coal fields identical layers in Africa. And there are many ot matches. Can you explain how these matching r formations ended up on opposite sides of an oc

Rock deposits left behind by moving sheets o known as glaciers have also been used as eviden support the theory of continental drift. Many gl deposits are found in South America, Africa, Inc Australia, and Antarctica. The similarity of these deposits indicates that they were left by the sam sheets.

Many of these ancient glacial deposits have b found in areas with very warm climates. Because glaciers usually form close to the poles, scientist have concluded that these areas were once part a giant landmass located near the South Pole.

ACTIVITY DOING

Pangaea

1. Using a globe and paper, trace the shape of each continent and Madagascar. Also trace the shape of India and the Arabian Peninsula.

2. Cut out each piece, leaving Asia and Europe as one.

3. Disconnect India and the Arabian Peninsula from Asia.

4. Piece together the continents as they may have looked before the breakup of Pangaea. Use the directions of plate motion shown in Figure 12–8 as a guide.

5. Attach your reconstruction of Pangaea to a sheet of paper. Compare your version with those of your classmates.