

A detailed illustration of a Ruby-throated Hummingbird in flight, hovering over a field of red columbine flowers. The bird is shown in profile, facing left, with its wings spread wide, revealing intricate feather patterns. Its body is primarily green with a white belly and a distinctive red throat patch. The flowers are tall and slender, with bright red petals and yellow centers. The background is a soft, pale blue sky, and the ground is covered in lush green foliage. The overall style is that of a classic nature illustration, with fine lines and a rich color palette.

RUBY-THROATED HUMMINGBIRD

Archilochus colubris | NATIVE TO NORTH AND CENTRAL AMERICA

During courtship, the wings of the male ruby-throated hummingbird move faster than the wings of any other bird. As it displays to a female, the male hummingbird reaches an incredible 200 wingbeats per second - nearly four times faster than its usual 53 beats. Hummingbird wings are connected to the body only at their shoulder joint, meaning they are able to rotate in a similar way to insects' wings. No other bird has wings like this and it is why the hummingbird can hover and fly so acrobatically.

Such rapid movement means the hummingbird may eat twice its bodyweight in a day to find enough energy, feeding mainly on nectar and sug, using its long tongue to probe flowers, but also eating insects and spiders. It has one of the highest metabolic rates of any animal; hummingbird hearts can beat over 1,800 times a minute. Only the female cares for the offspring. It builds a tiny, cupped nest out of grasses and spider webs, and camouflages it with dead leaves.



EMPEROR PENGUIN

Apelodytes forsteri | NATIVE TO ANTARCTICA

In the frozen Antarctic, where the temperature can drop to -40°C , extraordinary parenting is needed to keep emperor penguin chicks alive. Once the female has laid her egg, she passes care of it to the male and leaves to hunt. She often has to travel many kilometers to reach the edge of the ice pack and her ocean hunting grounds, where she is able to dive deeper than any other bird - over 180 meters - to catch fish, krill and squid.

While she is away the male balances the egg on his feet, protecting it from the elements under a brood pouch and huddling with other penguins to conserve heat. For two months, the male eats nothing, and may lose almost half his bodyweight. When the chick hatches, its father can produce a kind of milk from his esophagus to feed it. When the female returns, she regurgitates food for the chick and takes over its care, leaving the male free to hunt. Once the chick is old enough to survive outside the brood pouch it joins a crèche of up to several thousand other juveniles.

Eventually the whole colony will trek to the ocean together.