

# A Top Flight Example - Part 1

It was not until the 19th century that men began to seriously pursue the idea of powered flight. While there have been successes in imitating nature in other fields, the mechanical devices with flapping wings were a miserable failure in carrying man aloft among the clouds. Was it possible that the blind influence of evolution could not be mimicked by the highest intelligence that evolutionists could find in the universe? But in those early days men did build some successful flying machines, and the science of aeronautics has been evolving ever since.

Well before mankind's foray into the air, about 8,600 bird species were successfully airborne, because for each of them, all the conditions required for flight had been brought together in their body. They had a strong but light fuselage to support the exceptionally large and powerful flight muscles. They also had light-weight but strong keratin bill with no teeth, trimming the weight of the head. The bones were hollow - similar to aircraft members and bolts - to keep them strong but lightweight. The bones of larger birds were reinforced with internal bony struts. The 6½ feet (2 m) wing-span frigate bird has a 4 ounce (113 g) skeleton.

In order for the flight muscles to operate at full capacity birds have a high rate of metabolism. Weight for weight, a bird's heart can be more than three times larger than a mammal's, in order to provide the bird's higher rate of blood circulation. In this way oxygen and fuel are delivered to enable the flight muscles to consume energy at a high rate. To keep a hummingbird in the air its heartbeat can exceed 20 beats per second.

Also supporting the high rate of metabolism, ventilation is much more complex in birds than in mammals. In addition to lungs birds have up to nine air sacs in the neck, abdomen and wings. The air sacs act as bellows to keep air flowing through the lungs. The arrangement of these permits complete exchange of air with every breath, so maximum lung oxygen concentrations are higher in birds than in mammals. Happily, the feathers serve not only for flight but as a suit of clothing, insulating the bird from cold - and in coordination with oil from the preen gland at the base of the tail - from getting wet. Remarkably, the dry feathers of a bird weigh two or three times more than its skeleton. While the birds' body temperature of 106° F is warmer than humans' 98.6° F, birds don't need winter shoes. This is for at least two reasons - in cold weather blood flow to the feet is reduced. Also, there is a heat-exchange network in the blood vessels in each of the upper legs which salvages heat from the blood flowing down into the bare part of the legs, reducing the body's heat loss.

All these various specialized features are brought together in the formation of each bird. Evolutionists say that birds descended from what began as a reptile, but which mutated over a period of hundreds of thousands of years. Each of these mutations had to give some advantage for the survival of that individual to make it more fit than its competitors. Most mutations are harmful, making that animal less fit than the others around it so it does not survive to have offspring. This means that each time there is a harmful mutation the whole process has to go back to square one. But if the end of the process is to be reached successfully, the mutations must be concluded not only with perfected feathers. All the other physical features which constitute a bird must also have been completed at the same time by a parallel series of mutations.

The bird, all readily agree, is a masterly piece of design. Design has been defined as "a plan or scheme conceived in the mind". We know in whose mind the bird was conceived!