

...in the good old days

by Vic Saudek

YOU may remember the impressive sequence in Walt Disney's "Fantasia" where the early history of the earth was dramatized to Stravinsky's "Rites of Spring"; and you may even remember when that phase of evolution was depicted where reptiles first left the seas and started to crawl on the land and even to fly through the air. Among the first of these flying creatures was the Pterodactyl, a grotesque flying lizard that swooped around like a winged nightmare. Walt Disney was scrupulously accurate in his portrayal of these critters, even to the detail that they did not flap their wings, but SOARED!

These pre-Elmira meets were pretty exciting since a "slide to the valley" meant a full meal for some denizen of the deep blue sea, and the winning points were figured in ration points. Getting a lot of produce at sea level by a primitive pick-up system on the fly was sure to increase the wing loading and required a lot of real skill.

It is doubtful if the CAA would hang a type certificate on "Cycnorhamphus Suevicus" as one of these jobs has been named, but they flew, nevertheless, even as you and I. Basically, they were high winged monoplanes, some only as big as a sparrow, others (in the CG-4A class) were 24 feet from tip to tip. The main wing spar was a tremendous extension of the "little finger" (as it is located on our hands). It was a round tube, extremely light and quite strong. The knuckles were articulated to allow the wings to fold. The other fingers and "thumb" were very small in comparison, and were used as "tie downs" while hanging on cliffs when not in flight. This is still discernable in present day birds who are descendants of a collateral line from a common ancestor of the pterodactyl.

For those who might want to compare the present day bat with these antediluvian sailplanes, let them notice that the bat's wings are composed of the last three "fingers" of each hand, with a membrane covering, and only one "finger" and one "thumb" are not used in the wing surface. Furthermore, the bat's humerus bone (no relation to the funny bone, as bats never seem to be able to take a joke), which corresponds to the bone we can feel at the point of our shoulders, is quite a bit bigger, and since it is combined with powerful breast muscles, it allows the bat to flap his wings at a good clip. Modern birds also have a similar combination, but the Pterodactyl was not so fortunate. The best he could do was to hold his wings open and sniff for thermals like a son of a gun—even as you and I.

Scientists figure that the surface of the beast's wings was a membrane similar to a bat's wings. The leading edge out board of the "hand" was the tubular spar, and inboard, the leading edge was a bit of skin which stretched tightly from their unlovely necks to their "hands." The trailing edge of the wing ended at different places on different models, usually going to the feet which gave control about the pitching axis somewhat like the flying squirrel of today. Some of these hardy ancestors had no tails, others had tails like dragons, with an arrow-head or some such device on it similar to the weird tails on medieval dragons. The impressive similarity between the dragons that St. George, Siegfried and other heroes fought, and our pterodactyls is probably no mere happenstance as some pretty good likenesses of fossilized pterodactyls were

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Photos by American Museum of Natural History

Right: Cycnorhamphus
Below: Rhamphorhynchus.

