

Mexico Mo Sept 5/94

Prof O. C. Marsh
Yale College Conn.
New Haven

Dear Sir: I trust you will pardon me for presuming to ask a small favor of you. I am interested in the study of birds and find myself far away from libraries, collections & scientific associates. I submit on separate sheets some questions which I have tried to shape so that a single "yes" or "no" ^{written at the end of each} will answer them. I do not expect investigation or discussion — simply an expression of opinion from one that is foremost in the paleontology of birds.

I enclose stamped ^{and} ^{for return of queries} directed envelopes. I trust you will overlook such ignorance as the queries may imply.

Truly Respectfully yours.

J. N. Baskett

(1) Do you think that the birds came out of the reptiles by more than one stem?

(2) If by only one line, is the Archaeopteryx probably in the direct line of ascent or was it a very specialized branch of its own age

(3) Do you think that flight had probably an arboreal origin. i.e. did it begin with the reptile-like bird sailing down from trees as the flying-squirrel - as the tail and climbing fore limbs of the Archaeopteryx may indicate?

4 Or may its origin have been aquatic - the fore-limb being first mod-

Chambers 1890

It also appears that the birds were out of the reptiles by some other means.

It is only one bird in the collection that is marked in the district near of the west or was a very special bird of the same age.

It also appears that the flightless birds were not very numerous in the district near of the west or was a very special bird of the same age.

It also appears that the birds were out of the reptiles by some other means.

ified into Penguin-like flippers, and the rise into the air being the result of an upward impetus from beneath the water as in case of flying fishes?

(5) Or is it probable that flight may have had a terrestrial origin - from the use of the fore-limb as an aeroplane (as shown by the running ostrich) coming perhaps out of bi-pedal Dinosaurs?

(6) If all these origins are possible which appears the most probable? (3), (4) or (5)?

(7) Are all our modern flightless birds degenerations? If an exception please name a type

(8) Of course the settlement of the manner of the origin of bird-flight would have its bearing upon the query whether the perching, running, or swimming form of foot was primary (though not necessarily settling it). If the perching form as indicated in the *Archaeopteryx* was primary, is the probable recessive order the running, wading, swimming forms?

(9) Or is it probable that (through the Struthionine line) the degenerate keel, wing, foot & beak (by loss of teeth) were from some such form as *Nesperiornis*?

(10) Is it probable that there has been any redevelopment of the keel, wing or webbed foot?