

be grateful to their sensibilities; nor at night, coming to the earth when the rain or storm overtakes them; nor when a certain kind of food first makes its appearance. Nevertheless all these factors doubtless enter into the problem. Certainly there is a sudden increase of foliage-hunting insects when the leaves unfold. The foliage unfolds when the heat, moisture, and sunshine become favorable. Insectivorous, foliage-inhabiting birds would show little adaptation to their environments if they did not attend the feast spread for them. The food, protection, and grateful temperature are there all at the same time. The birds are there also as sure as the unfolding of leaves follows the advent of springtime, and the increase of insects accompanies the unfolding of the leaves, and the predacious insects the development of their prey. Thus natural selection has finally evolved a large number of species of birds with migratory habits.



THE CASE OF *MEGALESTRIS* VS. *CATHARACTA*.

BY J. A. ALLEN.

It is claimed by Mr. Franz Poche in the 'Ornithologische Monatsberichte' for February, 1904 (Jahrg. XII, No. 2, p. 23), that the name *Catharacta* Brünnich, 1764, should replace *Megalestris* Bonaparte, 1856, on the ground of priority, and that Brünnich's name should be orthographically improved to stand as *Catarracta*. As this name has, by different authors, been used for several different groups and spelled in many different ways, its history has, in the present connection, considerable interest. It appears to have been first used, in what may be considered a generic sense, by the pre-Linnæan author Moehring in 1752, and in a subsequent edition of his work issued by Nozeman and Vosmaer in 1758. There is necessarily no reference in either edition of Moehring's work to the tenth edition of Linnæus's 'Systema Naturæ,' even the second edition being essentially prior to the beginning of the binomial system. Also, Moehring was not a bi-

nomialist. His form of the word was *Cataractes*, and it was used for the genus of Guillemots now currently known as *Uria*.

It was next employed by Brisson in 1760, as *Catarractes*, for the 'Gorfou' (*Phaëthon demersus* Linn.), a Penguin, now known as *Catarractes chrysocome*; and this constitutes the only tenable application of the name. In 1764 the same word, in the form *Catharacta*, was used in a generic sense by Brünnich for the Skuas. He refers in a footnote to the fact that Brisson had previously made use of the name as a generic designation for *Phaëthon demersus* Linn. (= *Catarractes chrysocome* auct., but which should stand as *Catarractes demersus* ex Linn.¹), but adopts it, notwithstanding, for the Skua Gull because he thinks the name as used by the old authors referred to this bird. It should be noted that he renders Brisson's name, in this connection, with an *h*, — *Catharractes*, — further evidence that the two names are simply variants of the same word, the *Cataracta* of Pliny. The following is a list of some of the variants of it which have been used by different systematic writers:

Cataracta Retzius, 1800; Bonap., 1838, 1856, etc.

Catarracta Pallas, 1811; Leach, 1819; Poche, 1904.

Catharacta Brünnich, 1764.

Catharractes Brünnich, 1764.

Cataractes Moehring, 1752; Fleming, 1819; Gray, 1841.

Catarractes Brisson, 1760; Gray, 1846; Bryant, 1861.

Catarhactes Brandt, 1847.

Catarrachtes Hombr. & Jacq., 1841; Ogilvie-Grant, 1898.

As to the generic name of the Skuas, it cannot be *Cataracta*, nor *Catarracta*, nor *Cataractes*, nor *Catharacta*, each of which has been used for them, as all are preoccupied by *Catarractes* Brisson, which also has several variants, for a genus of Penguins; all are merely variants of an original *Cataracta* used by Pliny and other early authors for some apparently unidentifiable large oceanic bird. *Catharacta* Brünnich, were it otherwise tenable, is a synonym

¹ The name *demersus* appears to have been rejected for this species on account of a previous *Diomedea demersa* Linn. = *Spheniscus demersus* auct. mod.; but as *Phaëthon demersus* Linn. and *Diomedea demersa* Linn. refer to species belonging to different genera, there is no reason why the specific name *demersa* is not tenable for both.

of *Stercorarius* Brisson, which he intended it to replace, as shown by his citation of Brisson, although he included in it the Skua Gull, left in *Larus* by Brisson. His first species is *Catharacta skua*, and his second, *C. cephus*, which he figured, including structural details, which thus renders it properly the type of *Catharacta*.¹

Brisson (1764) founded the genus *Stercorarius* for the Jaegers, but left the Skuas in *Larus*. Illiger in 1811 proposed *Lestris* for the Jaegers and Skuas, citing both *Catharacta* Brünnich and *Stercorarius* Brisson, but recent authorities agree in considering *Lestris* a synonym of *Stercorarius*. Coues in 1863 adopted the name *Buphagus* for the Skuas, taking it from Moehring, 1752, but subsequently abandoned it, Moehring's names being pre-Linnæan and hence not available.

The first tenable generic name for the Skua Gulls is thus *Megalestris* Bonaparte, 1856, as now currently recognized.

The case of *Megalestris vs. Catharacta* temptingly offers a text for further remarks on general questions here involved. *Catharacta* presents a good example of the results of emendation, for whether used as a generic name for Penguins, Guillemots, or Skuas, the word occurs in several forms in each case, while the same form is found applied to more than one of the generic groups, the form employed varying with the preferences of the authors using the word. The forms *Catharacta*, *Cataracta*, *Cataracta*, *Cataractes*, and *Catarhactes* have, for example, all been applied to the Skuas, and also *catarrhactes* in a specific sense. As cases like this are frequent in zoölogical nomenclature, it is manifestly best to employ only the original form, even if faulty, and to apply the rule of priority to the forms of names as well as to the names themselves. Further, it is emphatically evident that of variants of the same word only the form having priority should be available, while all the others should be rejected.

¹The 'Code of Botanical Nomenclature,' prepared by a Nomenclature Commission of the Botanical Club of the American Association for the Advancement of Science, has been published since this article was sent to the printer (see notice of this Code in 'Recent Literature'), in which, under Canon 15, which deals with the selection of a nomenclatorial type of a genus or subgenus, it is provided: "(b) A figured species is to be selected [as the type] rather than an unfigured species in the same work."

On the other hand, names closely similar in form but known to be different etymologically and in significance, as *Picus* and *Pica*, *Simia* and *Simias*, should be accepted, but knowingly to add to the list of such names must be considered highly undesirable. Such cases are fortunately few, and afford no support for the recently proffered 'one-letter' rule, which would admit any number of literal variants of the same word, even where they fall not only into the same class of animals but even into the same family, as sometimes happens. Even the most strenuous supporters of this innovation are compelled to admit exceptions to its uniform application; and among those who accept it in a modified sense there is lack of agreement as to where the limit should be placed. The 'one-letter' rule would not only admit variants due to gender endings (*cf.* Poche, *l. c.*¹), but to different connecting vowels in compound words, the use or non-use of the aspirate in certain classes of words of Greek origin, the use of *l* or *ll*, *r* or *rr* in many words, the use interchangeably of *i* and *y*, etc. Some who reject differences in gender endings as insufficient differentiation, like *Chlorurus* and *Chlorura*, admit differentiation due to the use of a different connecting vowel, as in *Contopus* and *Contipus*. It seems therefore more conducive to uniformity to maintain the usages of the A. O. U. Committee on Nomenclature in treating as homonyms all variants of the same word, as is generally the custom among naturalists at large, and also exclude emendations, and take names as first proposed by their originators, even if sometimes obviously faulty in construction, and extend, as already said, the rule of priority to the *forms* of names as well as to the names themselves.

¹ Many cases can be cited where the same generic name has been used in all three genders by the same author in the same work or paper, or in different papers within a short period of time. On this point see Palmer (Index Gen. Mamm., 1904, p. 28) on the case of *Pogonias*. See also the same author (*l. c.*, p. 23) on 'emendations.'