

be *Cucumites globulosus*, although I am free to confess that is not the name I had intended it to bear! I would write the name and its authority as *C. globulosus* (Knowlton) Cockerell, and I may add, that, in my judgment, Professor Cockerell has himself further complicated the issue by intentionally publishing a combination in a field in which he has at most only a passing interest.

F. H. KNOWLTON.

WASHINGTON, D. C.

THOSE MANUSCRIPT NAMES.

TO THE EDITOR OF SCIENCE: I am much averse to using the pages of scientific papers for nomenclatorial discussion, but since Professor Cockerell's and Dr. Bather's articles indicate that I introduced MS. names merely to upset them, a few words may not be amiss. Dr. Bather says 'It (*Filistata oceanea*) appears first on page 50 of Mr. Banks's paper.' Such is not the case, and in this very paper (p. 60, bottom) I refer to an unpublished name of Marx but am careful not to introduce it. Dr. Marx (as I state) published a list of spiders from the Galapagos Islands in 1889 which includes six MS. names. In order to make my paper on the spiders of these islands complete it was necessary to note previous publications. In order to show how many spiders were known from these islands I collated the previous lists (Butler's and Marx's) with my material, in so showing that three of Marx's published names were synonyms of previously described species, and two others were the same as those I would describe below. In sinking five of the six previously published names (every one of which is still a *nomen nudum*) under described species I believe I was doing a service. My case is not unique; I can mention dozens; commonly, however, the MS. name is referred to after the description. And the paper and ink wasted in so doing are as nothing to the time and type wasted in the two articles which are the mismatched parents of this one.

NATHAN BANKS.

EXPLORATION OF OKEFINOKEE SWAMP.

TO THE EDITOR OF SCIENCE: Some of your readers may be interested to know that the

vast wilderness, several hundred square miles in extent, known as Okefinokee Swamp, in southeastern Georgia, so long avoided by botanists and other scientists—though mentioned as long ago as 1791 in the writings of William Bartram—has at last been penetrated. In company with Mr. P. L. Ricker, of the U. S. Dept. of Agriculture, and a guide, I entered the swamp near the center of its eastern margin on August 6, and came out at the same place on the 8th, having in the meanwhile been about a dozen miles into the interior and secured a considerable number of interesting plants and photographs.

One of the first features of the swamp to attract my attention was the fact that all the thousands of cypress trees seen were undoubtedly *Taxodium imbricarium*, a species whose distinctness from the old *T. distichum* I have recently attempted to show (*Bull. Torr. Bot. Club*, 29: 383-399, June 20, 1902). According to the theory there proposed (see pp. 389, 395) this would seem to indicate that the Lafayette formation underlies the swamp, or at least that part of it visited by us; but direct evidence on this point is still wanting. This formation was actually observed however a few miles east of the swamp, and it is reasonable to suppose that it underlies the whole area.

Lumbering operations in the swamp seem to have been suspended for the last few years (owing mostly, it is said, to the death of the principal promoters of the scheme for deforesting and draining it), and fortunately the natural conditions have been very little altered thereby. The fauna seems to have suffered considerably from the ravages of sportsmen, but the flora is practically intact, and the swamp offers a number of most interesting problems in many branches of natural science.

ROLAND M. HARPER.

FOLKSTON, CHARLTON COUNTY, GEORGIA,
August 11, 1902.

SOUTHERLY DEVIATION OF FALLING BODIES.

READERS desiring a somewhat fuller historical account of experiments and theories relating to the southerly deviation of falling

bodies than that given by Professor A. Hall in this journal, p. 349, are referred to my article in SCIENCE, N. S., Vol. XIV., pp. 853-855. The experiments by Professor E. H. Hall, recently outlined in this journal, p. 181, are extremely interesting. They seem to indicate a minute southerly deviation. Thus nearly all experimentalists on this subject, from the time of Robert Hooke to the present, have found a small southerly deviation. I believe the only exception is Benzenberg, who in 1804 had, for theoretical reasons, come to disbelieve in the actual existence of this deviation, and who, accordingly, found it absent in his experiments of that year after selecting from the total number of trials those only which, in his judgment, were made under the most favorable conditions. I read Benzenberg's and other papers in *Gilbert's Annalen* two years ago and I can not recall that Benzenberg, or any one else, ever announced a *northerly* deviation. In 1802 Benzenberg reported, as a final result of his experiments in Hamburg, a marked southerly deviation. In the following summary, *H* = height in m., *S.D.* = southerly deviation in mm., *A* = average southerly deviation in mm., per meter of fall.

	H.	S. D.	A.
Hooke, 1680,	8.3	+	
Guglielmini, 1791,	78.3	11.89	.15
Benzenberg, 1802,	76.3	3.4	.044
Benzenberg, 1804,	84.4	0.00	.00
Reich, 1831,	158.5	4.374	.028
Rundell, 1848,	400.	250 to 510	.95
E. H. Hall, 1902,	23.	.05	.002

FLORIAN CAJORI.

COLORADO COLLEGE,
March 3, 1903.

SHORTER ARTICLES.

PYCRAFT'S CLASSIFICATION OF THE FALCONIFORMES.*

PROBABLY no recent paper on the classification of any group of birds is equal in interest

* Pycraft, W. P., F.Z.S., A.L.S., 'Contributions to the Osteology of Birds,' Part V., *Falconiformes*. *Proc. Zool. Soc. Lond.*, 1902, Vol. I., Part ii., August 1, 1902, pp. 277-320, pls. xxxiii.-xxxvii.

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or importance to that by Mr. W. P. Pycraft on the osteology and classification of the Falconiformes, a group in which the crudities of earlier systems have been held on to with a persistence most remarkable in these days of advanced knowledge of avian anatomy. Until the appearance of Huxley's celebrated paper, in 1867* all naked-headed carrion-feeding birds of prey were 'Vulturidæ' (vultures), the superficial resemblance between those of the Old World and those of the New being, in those days of anatomical ignorance, far more obvious than the external differences, marked though they be. Although in separating the American vultures as a distinct family, Cathartidæ, Huxley drove the first nail in the burial case of the old systems, he unfortunately went no farther concerning the typical Falconiformes,† and, therefore, ornithologists have continued to recognize the purely artificial and unnatural minor groups of the older authors. All those of largest size, except vultures, are still 'Aquilinæ' (eagles), in the latest arrangements; all those with exceptionally long wings and more or less forked tails‡ are 'Milvinæ' (kites); all short-winged, long-legged and long-tailed forms 'Accipitrinæ' (hawks); those of heavy build, moderate size and alleged 'sluggish' habits 'Buteoninæ' (buzzards); while those with notched bills are 'Falconinæ' (falcons).

Although, as before remarked, Huxley's paper went scarcely beyond the definition of the three primary divisions of the order, he fortunately gave a valuable clue to further

* 'On the Classification of Birds; and on the Taxonomic Value of the Modification of certain of the Cranial Bones observable in that Class,' by Thomas H. Huxley, F.R.S., V.P.Z.S. *Proc. Zool. Soc. Lond.*, 1867, pp. 415-472. (The *Ætomorphæ*, = Falconiformes + Striges, treated on pp. 462-465.)

† He divided the so-called diurnal raptores into three groups, Cathartidæ, Gypaëtidæ, and Gypogeranidæ, each equivalent to the suborders Cathartæ, Accipitres, and Serpentarii of Pycraft.

‡ All these artificial groups, however, contain forms which do not conform to the diagnoses of said groups, some so-called 'kites,' for example, having a truncated or even rounded tail, and some 'eagles' being no larger than the average hawk.