information is given of copper mines in South America. The book is concluded with a résumé of statistical facts. A wealth of new information is given and much of the descriptive material is entirely rewritten, bringing the book up to date. The policy of frank criticism which has been such a valuable feature of the book in the past is evidently continued and it is safe to say that the "Copper Handbook" in this much-improved form will meet with the approval of those who seek information about the mining of this metal.

W. L.

EIGHTH LIST OF GENERIC NAMES (MAMMALS) UNDER CONSIDERATION IN CONNECTION WITH THE OFFICIAL LIST OF ZOOLOGICAL NAMES

28. Notice is hereby given to the zoological profession that the following list of sixteen generic names in mammals has been submitted to the International Commission to be acted upon under the plenary power authority, granted by the Monaco Congress, to suspend the rules in the Code of Nomenclature. This list is published herewith without comment and all persons interested in the subject are cordially invited to communicate with the secretary of the International Commission and to give him any arguments bearing on the subject.

29. In the following list the names are arranged in the following order: (*a*) preserve; (*b*) for; (*c*) genotype; (*d*) instead of; (*e*) see explanatory notes that follow list.

In accordance with the permission given to zoologists at the Monaco Congress to submit to the International Commission on Nomenclature names which are recommended for fixation by fiat, we the undersigned mammalogists beg to present the following sixteen names which we recommend as *nomina conservanda* in the class with which we are concerned. The general reasons for the presentation of such names have been so often published that we do not need to repeat them here:

(*a*) *Anthropopithecus;* (*b*) for chimpanzees; (*c*) type *A. niger;* (*d*) instead of *Simia* or *Pan;* (*e*) see note T.

(*a*) *Cercopithecus;* (*b*) guenon monkeys of Africa; (*c*) *Simia mona* Schr.; (*d*) *Lasiopyga;* (*e*) T. 1.

(*a*) *Chiromys;* (*b*) aye-aye; (*c*) *Sciurus madagascariensis* Gmel.; (*d*) *Daubentonia;* (*e*) 2.

(*a*) *Coelogenys;* (*b*) paca; (*c*) *Mus paca* Linn.; (*d*) *Agouti* or *Cuniculus;* (*e*) 3.

(*a*) *Dasypus;* (*b*) six-banded armadillo and allies; (*c*) *D. sexcinctus* Linn.; (*d*) *Euphractus;* (*e*) T. 4.

(*a*) *Dicotyles;* (*b*) peccaries; (*c*) *Sus tajacu* Linn.; (*d*) *Tayassu;* (*e*) ?.

(*a*) *Echidna;* (*b*) spiny anteater; (*c*) *Myrmecophaga aculeata* Shaw; (*d*) *Tachyglossus;* (*e*) 5.

(*a*) *Galeopithecus;* (*b*) Philippine colugo; (*c*) *Lemur volans* Linn.; (*d*) *Cynocephalus;* (*e*) T. 6.

(*a*) *Gazella;* (*b*) gazelles in modern sense; (*c*) *Capra dorcas* Linn.; (*e*) T. 7.

(*a*) *Hapale;* (*b*) marmosets; (*c*) *Simia jacchus* Linn.; (*d*) *Callithrix;* (*e*) T. 8.

(*a*) *Hippotragus;* (*b*) sable antelope and allies; (*c*) *Antilope leucophæa;* (*d*) *Ozanna;* (*e*) 9.

(*a*) *Lagidium;* (*b*) mountain chinchilla; (*c*) *Lagidium peruanum* Meyen.; (*d*) *Vizcaccia;* (*e*) 10.

(*a*) *Manatus;* (*b*) manatees; (*c*) *Trichechus manatus* Linn.; (*d*) *Trichechus;* (*e*) T.

(*a*) *Nycteris;* (*b*) the African bats usually so-called; (*c*) *Vespertilio hispidus* Schr.; (*d*) *Petalia;* (*e*) T. 11.

(*a*) *Rhytina;* (*b*) Steller's sea-cow; (*c*) *Manati gigas* Zimm.; (*d*) *Hydrodamalis;* (*e*) 12.

(*a*) *Simia;* (*b*) orangs; (*c*) *Simia satyrus, auct. nec* Linn.; (*d*) *Pongo;* (*e*) T. 13.

Cases marked with a T. involve, under the technical rules, the transfer of a name from one group to another.

Every name here recommended for legalization by fiat is well known to systematists, and universally used by general writers.

When a name is legalized by fiat, we consider that power may be assumed to fix the most classical form of the name, not necessarily that which was first used, *e. g.: Rhytina,*

not *Rytina; Chiromys,* not *Chieromys* or *Cheiromys.*

Purely consequential recommendations (*e. g., Tatu* for the tatous, *Lasiurus* for the American hairy-tailed bats), are not inserted in the list.

Notes to the List

1. *Cercopithecus* has been invariably used for the gueonons up to 1911, and its transfer to the tamarins only depends on Gronovius, a doubtfully binomial writer.

2. *Daubentonia* is almost unknown to general writers, the use of *Chiromys* having been nearly universal.

3. The names objected to are both known in connection with other animals, and the use of either of them for the paca is most confusing.

4. Technically *Dasypus* ought to be transferred to the tatous.

5. *Echidna* has been used by all classes of writers. It would have to be withdrawn from ichthyology.

6. The use of *Cynocephalus* involves a particularly objectionable transfer.

7. An early reference by Pallas in connection with *Oryx gazella* makes it advisable to affix the name *Gazella* to the gazelles before it is attempted to be used for the gemsbucks.

8. The transfer of the name *Callithrix* from the titi monkeys (*Callicebus*) to the marmosets is highly confusing. The name should be dropped altogether.

9. *Hippotragus* has been widely used; *Ozanna* is practically unknown.

10. The use for the mountain chinchillas of *Vizcaccia,* the vernacular name of *Lagostomus,* is most objectionable.

11. By the technical rules *Nycteris* would have to be transferred to the American hairy-tailed bats (*Lasiurus*).

12. *Hydrodamalis* is almost unknown to writers of any class.

13. Specific name (*satyrus*) to be fixed as well as generic, the original *Simia satyrus* Linn. being a chimpanzee.

Signed: KNUD ANDERSON, ANGEL CABRERA, EINAR LÖNNBERG, R. LYDEKKER, PAUL MATSCHIE, OLDFIELD THOMAS, L. L. TROUESSART.

C. W. STILES,
Secretary International Commission

SPECIAL ARTICLES

THE IONE FORMATION OF THE SIERRA NEVADA FOOTHILLS, A LOCAL FACIES OF THE UPPER TEJON-EOCENE

ONE of the numerous problems of California geology is the correlation of the Tertiary (the superjacent series), of the Sierra Nevadas with the Tertiary of the Coast Ranges. Many geologists have written on the age of the auriferous gravels and their associated formations since the time of Whitney, but the age of these formations is still in question and their relation to the marine deposits of the Coast Ranges is unproved.

While collecting during the past two years for the department of paleontology, University of California, the writer has had opportunity for the study of the relationship of the Ione of the Sierra Nevadas with the marine Eocene of the Coast Ranges. His conclusions are based upon visits to four typical Ione localities, viz., Marysville Buttes, Sutter Co., Cal., vicinity of Oroville, South Table Mountain, Merced Falls, and the type locality near the town of Ione in the Jackson Quadrangle.

The conclusion from this study is that the Ione, in part at least, is marine and of Tejon-Eocene age. Marine fossils have been found in the upper portion of the Ione formation at Marysville Buttes, Oroville, South Table Mountain, Merced Falls and Ione. Apparently the same faunal zone, the *Siphonalia sutterensis* zone,[1] is represented.

In the study of the Eocene of the Marysville Buttes the writer's conclusion was that "the supposed marine Ione of Marysville Buttes is evidently Eocene." In the "Note on the Faunal Zones of the Tejon Group," the strata beneath the Older Basalt of Oroville South Table Mountain which Lindgren mapped as Ione, were correlated with the Eocene of the Marysville Buttes. Several of the fossils obtained from the strata beneath the Older Basalt were identical with those of

[1] Dickerson, R. E., "Fauna of the Eocene at Marysville Buttes, California," Univ. of Calif. Publ. Bull. Dept. Geol., Vol. 7, pp. 257–298, 1913. "Note on the Faunal Zones of the Tejon Group," Univ. Calif. Publ. Bull. Dept. Geol., Vol. 8, p. 23, 1914.