

standard periodicals, of which complete sets are supposedly available in these libraries does not cover the case. The United States at least is afflicted with several scientific periodicals of avowedly general nature, and some of the special journals have a none too stable editorial policy. Some of these special journals moreover still further complicate bibliographical work by permitting the publication of abstracts of work which at some time may be judged worthy of adequate publication, thus cluttering their indices beyond the point of convenience if not utility.

If then our libraries, even our special libraries, are to approximate completeness in their indices of current published scientific material they should have the assistance of the investigators themselves, at least to the extent of supplying them with such articles as are reprinted for private circulation. It is an almost universal custom for investigators to distribute reprints of their own papers among their colleagues. To add to these private mailing lists the names of the fifty leading libraries of this and other countries would mean some trouble and some slight expense. The time and cost thus involved would however be a very small fraction indeed of that expended in the prosecution and publication of the work and the insurance thus purchased that the papers would be cared for and made more available to this and succeeding generations would be well worth the investment.

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THE FUR SEALS

TO THE EDITOR OF SCIENCE: In an interesting and suggestive article on the "Rescued Fur Seal Industry" in SCIENCE for July 23, Mr. W. T. Hornaday states that "man's so-called management (of the herd) lies solely in the use of the seal killer's club and the skinning knife." This is not quite the whole truth, for while the behavior of individual animals in feeding, breeding, or migration is beyond human control, man can do something to in-

crease the numbers. In the nineties, most of the young seals lying on sandy "rookeries" were killed by the hookworm (*Uncinaria lucasi*). Those on the rocks were virtually immune and as the shrinkage of the herd, before its rescue took them practically all off the sands, no "wormy pups" are lately reported. In 1897, the Commission of that year gather up—and mostly burned—12,000 "pups" that had been weakened by the hookworm and then trampled by the bulls. In that year we had several sandy patches in Zapadni rookery covered by rocks, and we suggested fencing the animals away from the great sand flat of Tolstoi. To cover or fence up sandy areas is a possible factor of "management."

Another is the extirpation of the "idle bulls" which surround the rookeries and raid the harems, killing many females and young. Ninety per cent. or more of the males of this polygamous species are wholly superfluous. In the recent absurdly needless "five years closed season" these have accumulated to the danger point. I am told that an order has now been given for the shooting of 7,000 of them.

The protection of the females from killing on land and sea may be also regarded as a phase of "management."

Whether other islands could be stocked from the Pribilofs has never been tested. On these islands there is ample breeding space for millions more, and there is no evidence of food shortage outside.

DAVID STARR JORDAN

A PRELIMINARY NOTE ON THE GERMINATION OF UROPHLYCTIS ALFALFÆ

RESTING spores from decaying galls of alfalfa crown-wart have been observed to germinate in water cultures. The globose resting spores, depressed on one side, are 38-42 by 30 microns in diameter. They produce from one to fifteen or more zoosporangia which escape through irregular fissures in the brown walls. The zoosporangia vary in diameter from 10 to 40 microns. Zoospores leave the sporangia through short tubes projecting about 2 microns from the hyaline wall, with