

appears to be the method of evolution. This interpretation is difficult to harmonize with Blackwelder's assumption (p. 365, line 9) that "new species originate not by gradual imperceptible changes, but by sudden mutations." His assumption leads to the idea that some new creature of human lineage will crowd out man, whereas, predicting from the past, man will probably evolve gradually via new Mendelian combinations, chromosome aberrations and gene mutations. There seems to be little chance for off-shoots to diverge from man.

What are the chances that some other species not of human stock may outstrip man? For comparative analysis, consider the birds. When they took to the air, they obtained a practical monopoly among vertebrates despite the prior claims of the pterosaurs and winged insects. With this monopoly, they were able to spread and differentiate into very successful groups. In doing so, they undoubtedly eliminated by competition many of the intermediate stages of development, so there are few forms left to indicate the steps in their evolution.

Man is in a similar position with his monopoly on intelligence. He was the first to develop it to the stage where it could be successfully applied to modification of his environment on a large scale. This environmental control is so enormous by comparison with other animals that he is transforming large sections of the world so as to produce increased density of his own population and his satellites at the expense of other creatures. In so doing, man seems, like the birds, to have crowded out intermediate forms, so there is now a large gap between man and his nearest primate relatives. But there is still a difference between the past divergent evolution of birds and the prospects for man. In contrast with birds which developed divergence in ecological isolation, man is now reversing the process. With his rapidly developing transportation facilities, he is tending to prevent isolation, thus providing more and more mixing of divergent hereditary characteristics of previously differentiated races.

With man applying his intelligence to the control of his biological competitors and with his biological destiny in his own hands (Goodale), it would seem that man has good cause to be optimistic despite the alleged dangerous specializations to which Miller called attention. There may be, however, enough generalized characters of man to nullify the purported dangers from such specializations. There seems to be nothing on the horizon in any direction which shows possibilities of taking leadership away from man or his descendants—certainly not the insects.

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DEMONSTRATION OF LABYRINTHULA PARASITE IN EEL-GRASS FROM THE COAST OF CALIFORNIA¹

In a recent publication of the U. S. Fish and Wildlife Service, Moffit and Cottam describe some current abnormalities in the feeding behaviors of brant along the Pacific Coast.² These appear to be related to the depletion of marine eel-grass, *Zostera marina*, that forms the preferred food of brant. Marked loss of the Pacific varieties of *Zostera marina* is limited to a few localities, and the condition is not comparable to the sudden wasting of Atlantic eel-grass in 1931.

At various intervals during the past year I have examined specimens of plants taken from affected beds without obtaining satisfactory evidence of parasitic activity. Recently, however, I received exceptionally well-fixed material in which I was able to demonstrate readily the *Labyrinthula* common to the diseased Atlantic eel-grass. The parasite was clearly present in two specimens collected from North Humboldt Bay, California, and from San Quentin Bay, Lower California. The beds from which they were taken were in good condition with few wasted plants. The *Labyrinthula* shows the same morphological features and peculiar distribution in recently invaded leaf tissue as in diseased leaves of Atlantic eel-grass.³

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A SYSTEM FOR THE FILING OF REPRINTS

ALTHOUGH we are in sympathy with the recent request of Professor McCay¹ regarding standardization of size of reprints it is not likely that all journals will respond to his suggestion. In any event the change could not be retroactive, and hence we are faced with the problem of filing reprints larger than the usual sizes. The author has adopted recently a system, which may not be original, though I have not seen it used elsewhere, which gives promise of being satisfactory. The present file contains more than two thousand reprints and reports.

Discarding the usual boxes the system makes use of small metal cabinets. The particular cabinet chosen² contains 27 drawers, each measuring 3" × 9" × 12". In addition to accommodating the larger reprint sizes of which Professor McCay complains it is possible also to file typed reports (8½" × 11"). Of advantage

¹ Contribution No. 311 of the Woods Hole Oceanographic Institution.

² J. Moffit and C. Cottam, Wildlife Leaflet 204, November, 1941, 26 p. (mimeo.), Fish and Wildlife Service, U. S. Department of the Interior, 1941.

³ C. E. Renn, *Biol. Bull.*, 70 (1): 148-158, 1936.

¹ C. M. McCay, *SCIENCE*, n.s., 94: 415, 1941.

² Obtained from Hobart Cabinet Company, Troy, Ohio.

also is the adaptability of these cabinets to otherwise unused space in the laboratory or office. They may be placed flat against the wall (and stacked one upon another in tiers) or at the ends of desks, tables, etc. Use of these cabinets likewise eliminates the necessity of shelving, and thus an empty room may be converted to a reprint file room without expensive carpenter work. The flexibility of the system allows the addition of small units as needed or budget may permit. In the event the collection requires moving it is an easy task to crate the individual cabinets; this also spares one of the unwelcome task of sorting and filing following the move.

The author prefers a subject filing system to an alphabetical author listing, since the material is of most value when thought of in relation to subject. Such a file (for example, a departmental collection) is then of value to graduate students or others who know the subject upon which they seek information but who, as yet, may be unfamiliar with the various authors. In my collection all reprints are marked by me in the upper right-hand corner in red ink to indicate the subject, thus permitting secretarial or other aid in filing. A typed list, which is posted, indicates the scope of each section, and thus the collection is available to others without my aid. With the modern trend to research by projects involving several persons rather than the isolated individual the need becomes emphasized of a single large file useful to the group.

In many instances (for example, reports relating to physiology, serology, taxonomy, etc.) there may be too many reprints relating to a certain subject to form a workable unit. For these a series of drawers is devoted to subdivisions of the larger topic which in the case of "physiology" include carbohydrate metabolism, nitrogen metabolism, lipolysis, effect of environment on microorganisms, etc. With the aid of a card file there is no worry that a reprint which relates directly to two or more subjects may be "lost" in the file since additional cards may be entered in the various subject divisions with each of the cards marked to indicate the placing of the reprint in the file. Since the card file contains countless references from the original literature and abstract sources those cards for which a reprint is available are so marked. The author has found no value in an alphabetical author listing of the reprints for general use, though

perhaps such a compilation might be desirable for library holdings of a gift collection.

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PER CENT.

If instructions in an original paper or a laboratory text-book call for, say, a 40 per cent. aqueous solution of caustic soda, it is probable that what is required is a solution containing 40 g of NaOH per 100 cc of solution, which is actually a solution containing about 30 per cent. NaOH by weight. Less probably, 40 g in 100 cc of water is actually meant, that is 28.6 per cent. by weight. Just possibly the author may really mean 40 per cent., that is, 40 g NaOH dissolved in 60 g of water. But, in general, no indication is given as to what is meant. There is often similar ambiguity in instructions for preparing mixtures of fluids when concentrations are stated as volumes per cent. With concentrations up to about 10 per cent., when accuracy is not required, the ambiguity is not important, but with stronger solutions misunderstanding may be critical.

It may be claimed that the custom of using the term "per cent." for grams or volumes per 100 cc solution is so well established in American scientific literature that nobody would be misled by it. However, the writer has been misled at times and the custom is confusing since it is not universally followed. For instance, bottles of concentrated hydrochloric acid are labeled with the specific gravity and the percentage acid, the percentage being given in the correct sense, that is, in grams acid per 100 grams of solution. The "Handbook of Physics and Chemistry" uses "per cent." only in the correct sense and uses specific statements for the other senses, see, *e.g.*, "Tables of Specific Gravity of Aqueous Solutions" and "Tables of Physical Constants of Compounds."

The incorrect use of "per cent." seems to be largely confined to writers in biological sciences, but there is no reason why workers in these fields should be content to use slipshod terms. I would like to recommend that authors, when stating concentrations of solutions, should indicate exactly what is meant, by using unambiguous expressions such as n g per 100 cc solution, of n g per 100 cc solvent, or n g in m cc solvent.

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THE BRITISH GRAHAM LAND EXPEDITION, 1934-37

THE Graham Land Expedition was primarily engaged in survey work on the west coast of Graham Land and the adjacent islands, in the Falkland Island

Dependencies, Antarctica. Advantage was taken of the exceptional opportunities for zoological research, and the resulting reports are being published by the British Museum. The following, dated August to October, 1940, have come to hand: