forms a stable complex only with copper (II).

The regularities noted are as follows:

1. In a series of analogous dyes there is a decrease in stability of the metal compounds with increased acidity of the dye.

2. A terdentate group forms a more stable compound than a bidentate group.

3. The hydroxyl group is a stronger coordinating group than the carboxyl group.

4. The simple pyrazolone dyes (Type V), although stronger acids than the simple monohydroxy (Type VI) compounds, form more stable compounds.

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Comments and Communications

Alternaria within Pericarp of Wheat Seed

IN a communication to *Nature* (*1*) on "The problem of wheat rust," I stated that I obtained *Alternaria* from a majority of fresh and healthy Indian wheat seeds of the current year when they were aseptically treated and planted in culture tubes. From culture of surface-sterilized grains of Barsée wheat (a rust-resistant variety), Miss Hyde (June 1950) observed that the "most common subepidermal fungus is *Alternaria tenuis* (in 64.4% of grains);" she further holds that the subepidermal mycelium apparently arises either from systemic infection of the wheat plant (as in case of *Lolium* spp.) or from fungal spores and hyphae present on the outside of the developing grains and among the dead floral parts. She has not been able as yet, however, to find an instance of actual penetration of the epidermis—the method of entry of the subepidermal mycelium—although she is still trying to find it. From the basal internode (about 1–2 in. long) of flowering stems of Barsée wheat and from stems immediately below the inflorescence, she could get, under aseptic condition in culture plates, *Alternaria tenuis* in 40 and 43 stems out of 70 (*cf.* Table 3, at p. 355, *loc cit.*).

When healthy wheat seeds, aseptically treated, germinated within the culture tubes, sections of the plumules and radicles of healthy wheat seedlings showed the same septate and branched hyphae within their tissues, which in pure culture produced *Alternaria* spores; and, as stated in *Nature*, "repeated isolation of mycelium of *Alternaria sp.* from surface-sterilized seeds indicated that the fungus remained within the seed tissues." Christensen (*3*) seems to hold *Alternaria* mostly to be a storage mold in the case of high-grade wheats. But it is clear (*4*) that he definitely holds *Alternaria* to be "of no known significance in the deterioration of stored seed." Now, of the two alternatives left (i.e., parasite and symbiont), *Alternaria* obviously cannot be a parasite within the seed pericarp of all the healthy wheat plants of the world. Hence, I hold that there can be no other conclusion than that *Alternaria* should be regarded as a symbiont and that further work on eradication of wheat rust should proceed along this new line.

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Zoological Nomenclature

NOTICE is hereby given that, as from April 15, 1953, the International Commission on Zoological Nomenclature will start to vote on the following cases in the Class Aves, involving the possible use of its plenary powers for the purposes specified in brackets against each entry. Full particulars of these cases were published on October 15, 1952, in the *Bulletin of Zoological Nomenclature*, in Triple-Part 1/3 of Vol. 9.

(1) *Colymbus* Linnaeus, 1758, and *Gavia* (all uses prior to *Gavia* Forster, 1788) [suppression]; (2) *caspicus* Hablizl, 1783, *Colymbus* [suppression]; (3) *cafra* (*Otis*), *cafer* (*Cuculus*), *sulphuratus* (*Cuculus*), *flavescens* (*Lanius*), all of Lichtenstein, 1793 [suppression]; (4) *nortoniensis* Gmelin, 1789, *Fringilla* [suppression]; (5) *natka* (*Lanius*) and *septentrionalis* (*Lanius*), both of Gmelin, 1788, and *eimeensis* (*Columba*), *unalaschkensis* (*Hirundo*), *borealis*

(*Motacilla*), *cirrhatus* (*Pelecanus*), *australis* (*Sterna*), all of Gmelin, 1789 [suppression]; (6) *phaeus* (*Turdus*), *elegans* (*Motacilla*), *chlorotis* (*Muscicapa*), all of Forster, 1794, and *novaehollandiae* Latham, 1790, *Muscicapa* [suppression]; (7) *Pyrrhocorax* Tunstall, 1771 [validation, for the chough]; (8) *philomelos* Brehm, 1831, *Turdus* [validation, for the song thrush]; (9) generic name *Vermivora* and trivial name *lutea* (*Muscicapa*), *pensylvanica* [sic] (*Passer*), *americ.* [sic] (*Vermivora*), all of Linneaus, 1776 [suppression]; (10) *migratoria* Linneaus, 1776 *Columba* [validation, for the passenger pigeon]; (11) *Bubo* Duméril, 1806, *Coturnix* Bonnaterre, 1790, *Egretta* Forster, 1817, *Oriolus* Linnaeus, 1766, [validation, by suppression of senior homonyms published by Brisson in 1760]; (12) *Capella* Frenzel, 1801 [validation, by suppression of *Gallinago* Brisson, 1760]; (13) *Myiobius* Darwin, 1839 [validation and designation of type species]; (14) *cyanea* Hume, 1877, *Muscitrea* [validation, by suppression of *cyanea* Vieillot, 1818, *Muscicapa*]; (15) *ferruginea* Hodgson, 1845, *Hemichelidon* [validation, by suppression of *ferruginea* Merrem, 1784, *Muscicapa*].

Comments on the above cases should be sent as soon as possible to the undersigned.

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Color in Trilobites of Trenton Age

IN 1949, a slab of Trenton limestone was picked up from an outcrop beside Route 12, southeast of Watertown, N. Y. It appeared to be a typical, fossiliferous fragment. Recently, however, its dusty surface was cleaned under cold tap water with a nylon bristle brush, without any other cleansing agent, and the monotone mass of fossils suddenly showed bright shrimp-pink spots. Not only did the two recognizable fragments of carapaces develop this color, but numerous fragments, unrecognizable when dry, were identified as carapaces by the color change. Upon drying, a faint tinge of color was retained by the two larger fragments as long as the air remained humid, but the rest faded again into the gray background, to regain color only upon rewetting.

The rock is a somewhat argillaceous limestone with a brownish-gray ground mass. It appears to represent a strand phase of deposition, as the fragments are small and well sorted as to size. The trilobites appear to be *Calymene senaria* and are represented by shed and broken carapaces. The brachiopods show well-preserved but separated valves, mainly of *Plectambonites sericeus* and less abundant *Dalmanella testudinaria*. The crinoid stems have been recrystallized and appear white at the ends of the broken segments. Four varieties are present, but no crinoid heads were found except one too fragmentary for identification. The stems are broken into single disks to lengths of 8–10 segments. The bryozoa are also broken, but none of the fragments is markedly worn, and detail is excellent.

There has been some infiltration of iron-bearing water between the close-packed layers and along joint planes, but the color is the normal red of iron oxide and not the same as that in the wet trilobites. Traces of the iron oxide remain when dry, especially about the joint cracks, but none was noted on the surface of the slab.

In discussing the matter with H. N. Coryell, it was learned that some trilobites in the Cincinnati area, from the Upper Ordovician or Lower Silurian, are pinkish in color, but no mention of color in any trilobites has been found in the literature.

The presence of color presents several possibilities. First, the chitinous carapaces may have absorbed selectively dissolved material in the ground water, which calcareous fossils let pass without change. The color of the absorbed material may have been modified in the process of addition to the chitin. Second, the pink may be the residual, natural color of a shed, sun-baked carapace, such as is seen in crab carapaces on modern beaches. Third, this may be the residual color of living trilobites, in seas as colorful as those of today.

The second possibility would indicate a crustacean characteristic of long standing. The third possibility might indicate that the browns, greens, grays, and mottlings of modern crustaceans are an overlay upon the primitive pink. It may be that the pink in modern forms is now restored only by boiling or sun-baking after death.

No study has been made of this matter beyond the observations and description reported here. This note is presented as a suggestion for further study by paleontologists and, perhaps, biologists.

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On Certain Problems of Taxonomists

IN a recent communication (SCIENCE, **116**, 152 [1952]) R. I. Smith has discussed one of the problems of the use of names for experimental animals. This suggests to us another problem, which is frequently not recognized by physiologists and ecologists when trying to obtain identification of their experimental material.

The great majority of systematists (especially in marine groups) are not working at this discipline for a living but practice it on their own time. Only the museum specialists belong to the happy, fortunate band of those chosen to practice systematics for a living, and they are too often snared in red tape. In some groups, which may be favorite experimental or critical ecological material, identifications are exceedingly difficult and the number of competent specialists is very small. Furthermore, almost every specialist is loaded up with collections he has obligingly agreed to identify for some ecologist or research institution.