Zoologischer Anzeiger

herausgegeben

von Prof. **J. Victor Carus** in Leipzig.

Zugleich

Organ der Deutschen Zoologischen Gesellschaft.

Verlag von Wilhelm Engelmann in Leipzig.

XIX. Band. 30. März 1896. No. 499.

I. Wissenschaftliche Mittheilungen.

1. Mallophaga of North American Birds.

By Vernon L. Kellogg, Stanford University, California.

eingeg. 25. Januar 1896.

The species of *Mallophaga* described by Denny, Nitzsch, Giebel and Piaget in their monographs are based on specimens taken almost exclusively from birds of the Old World. No recognizable species of *Mallophaga* has been described from specimens taken from North American birds. An American entomologist, Prof. Herbert Osborn, has identified on birds taken in North America 15 species of *Mallophaga* originally discovered on European bird specimens; of these 15 species, 4 are from birds which may be called domestic fowl and are specifically identical with the European birds from which the same species of *Mallophaga* were taken.

As a result of a recent examination of a collection of *Mallophaga* made by me from North American water and shore birds, mostly maritime birds shot on the Bay of Monterey, California, I have described one new genus and 38 new species, and identified 23 species of *Mallophaga* originally described from Old World birds. In addition, of 40 species taken from American land birds, I have been able to refer 16 to already described forms, the remaining 24 being new. In almost all cases where already known species were found, the parasites have either been on birds identical in species with the Old World

birds from which the type specimens were taken (the instances naturally very few as occurances of the same species of bird in the Old and New World are uncommon) or the parasites have been taken from the American representatives (species) of the same genus to which the originally noted Old World host belongs. For example, *Nirmus pileus* and *N. signatus* found on *Recurvirostra avocetta* by Nitzsch and Piaget were found by me on *Recurvirostra americana*; *Lipeurus forficulatus* found by Nitzsch on *Pelecanus onocrotalus* was found by me on *Pelecanus trachyrhynchus* and *P. californicus*; *Lipeurus fexox* found by European authors on *Diomedea exulans*, and *D. melanophrys* was found by me on *D. brachyura*. And the whole list might be thus gone through with.

In all of the instances where already described species have been taken, the specimens from the American birds showed slight variations from the type specimens (as far as I can judge from the descriptions and figures; I have had no opportunity of comparing my specimens with the type-specimens). But as it is equally true that the specimens from different individuals of the same bird species vary noticeably, the definition of the Mallophagous species must be broad and flexible. While the species of *Mallophaga* are many, the genera are few; i. e., the group consists of a large number of closely-related and gradatory forms. By the oftentimes nearly complete isolation of the parasites on the host species (in cases of non-gregarious birds) variations are rapidly fostered and fixed. Migration of the parasites from bird species to bird species is evidently rarely accomplished except in cases of actual contact of the hosts. This is shown by the fact that the great majority of known species of *Mallophaga* are peculiar to some one bird species. The migration of the parasites from individual to individual of one bird species can be accomplished during copulation (from adult to adult), during nesting season (from adult to young), and during any contact due to gregarious habits of the birds, as in roosting, feeding etc.

Among closely allied bird species where hybridization occurs, as among the ducks, a single species of parasite may become common to all the bird species, as *Lipeurus squalidus*, *Docophorus icterodes* and *Trinoton luridum* among the ducks (recorded from more than a dozen species of ducks). Or where several species of closely allied birds feed or roost together a single parasite species may become common to all, as *Docophorus lari* and *Nirmus lineolatus* among the gulls (recorded from ten or more species of *Larus*). Finally, in a group of closely related bird species, i. e. evidently recently separated forms, a species of parasites may be common to all by having persisted unchanged from the common bird ancestor. This last condition may be that exhibited

by the ducks and gulls; but it is obvious that the other two conditions may be causal in some of the instances where several bird species have a common parasitic species.

2. Réclamation de Priorité sur l'Embryogénie des Gordiens et des Nématoïdes.

Par A. Villot, Professeur au Laboratoire libre de Micrographie, Grenoble (Isère).

eingeg. 25. Januar 1896.

Dans ses Recherches sur l'organisation et le développement des Nématodes, publiées en 1894, M. Léon Jammes[1] a donné de l'évolution embryogénique des Nématoïdes une intéressante description, que l'on peut résumer de la manière suivante:

On distingue, dans le blastoderme des Nématoïdes, deux feuillets primitifs: un protectoderme, qui est constitué par une assise superficielle des cellules cubiques; et un protendoderme, représenté par une masse cellulaire sous-jacente. Le protendoderme forme, par délamination, le mésoderme et l'endoderme définitif. Le clivage divise sa masse en deux portions: l'une centrale, ayant la forme d'un cylindre plain, dirigé d'avant en arrière, suivant le grand axe de l'animal; l'autre tubulaire, contenant à son intérieur le cylindre cellulaire central et revêtue extérieurement par l'assise cellulaire ectodermique.

L'ectoderme, qui se présente au début sous la forme d'une simple couche cellulaire, produit la cuticule par exsudation; et donne ensuite, par transformations des cellules primitives qui le constituent, naissance aux éléments du système nerveux. Ce dernier est représenté, chez les individus adultes, par l'hypoderme des auteurs, qui n'est autre chose qu'une couche nerveuse diffuse et continue.

Le mésoderme est, à son début, constitué par une couche des cellules embryonnaires, ayant tous les caractères d'un mésenchyme. Les cellules qui forment la couche périphérique du mésoderme se différencient et se transforment en éléments musculaires. La partie interne du mésoderme, qui n'évolue pas, conserve son caractère embryonnaire, et se trouve représentée, chez les individus adultes, par des tractus protoplasmiques, qui rattachent le mésoderme à l'intestin ou aux organes génitaux.

---

[1] Les recherches de M. Léon Jammes ont été effectuées dans le laboratoire d'Histoire Naturelle de la Faculté des Sciences de Toulouse, sous la direction de M. Louis Roule, puis présentées comme Thèse à la Faculté des Sciences de Paris, pour obtenir le grade de Docteur ès Sciences naturelles. Les espèces examinées au point de vue embryogénique sont au nombre de deux: l'*Ascaris lumbricoïdes* et l'*Oxyuris longicollis*.