eral millions of years old, it appears to belong to the living genus *Corydoras,* and may be known as *Corydoras revelatus* n.sp. It is 27 mm long from end of snout to base of caudal fin, the total length at least 31 mm; depth at base of dorsal slightly over 9 mm; width of orbit 2 mm; orbit from top of head 1.8 mm, from end of snout 3.5 mm; lateral plates numerous, certainly over 20 in each series; dorsal spine very strong, anal spine weak. In the deep body, arched profile of head, and rather large eye it resembles *C. paleatus* (Jenyns), a species discovered by Darwin on the voyage of the *Beagle.* The eye appears to be placed lower down, but this may be the result of crushing. The opercular plate agrees with that of *C. paleatus* and other species, having the lower posterior margin concave. The dorsal spine is very heavy, suggesting *C. armatus* (Günther), but there is no evidence that the soft rays are prolonged to a point.

The discovery of this fish, together with that of the accompanying insects, shows that the variegated green and red shales of this part of Argentina belong to the Tertiary, possibly late Tertiary, and are of freshwater origin. This is a matter of considerable importance as the age of the beds was somewhat in doubt. The discovery of fossil insects in these rocks is due to Mr. Geo. L. Harrington; my wife and I visited the locality and obtained many species.

Corydoras still lives in the same region; thus *C. micracanthus* of Regan was discovered at Salta.

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TOBACCO AND TOMATO MOSAIC

(1) LONGEVITY OF THE VIRUS OF TOBACCO MOSAIC

IN February, 1920, I received from Dr. H. A. Allard for comparative tests a small bottle of expressed juice from mosaic-diseased tobacco plants. It was unfiltered and protected from contamination by a layer of toluene. A small portion only was used at the time and the remainder tightly corked and set aside.

On May 25, 1925, four healthy plants were inoculated by rubbing two leaves of each with a small portion of the preserved juice. Two check plants were treated similarly, using sterile water. The plants were kept in a good light in the laboratory. On June 15 each of the four plants was definitely mosaic-diseased, while the two check plants were perfectly healthy, as they have remained to date.

On June 25 four other healthy plants six weeks old were similarly inoculated and left in the greenhouse, while check plants were again treated with sterile water. On July 10 each of the four inoculated plants was showing excellent mosaic symptoms, while checks were healthy.

It is therefore a fact that the expressed juice of mosaic-diseased tobacco plants retained *in vitro* over five years is still infectious.

(2) STREAK OF TOMATO IN QUEBEC A "DOUBLE-VIRUS" DISEASE

Mr. T. C. Vanterpool, working in my laboratory, has been studying "streak or stripe" disease of tomato since 1923. Diseased plants and those artificially inoculated with "streak virus" often tend to outgrow streak symptoms in the upper straggling part of the plant, but they always present mosaic symptoms in those parts. Further, the virus of tomato streak inoculated into tobacco always gave mosaic, and a transfer from that tobacco often reproduced streak in tomato. The possibility of double inoculation was therefore considered, and the following summarized facts cover the work done this season in both greenhouse and field.

Healthy tomato plants inoculated with a mixture of viruses from mosaic-diseased tomato and potato, or tobacco and potato, develop streak in about fourteen days. Mosaic-diseased tomato plants inoculated with virus from mosaic-diseased potato develop streak. Virus from diseased potato gave rise to doubtful mosaic in healthy tomato. Juice from a tobacco plant showing mosaic after inoculation with tomato and potato mixed virus developed streak when inoculated into healthy tomato.

Combinations of bean mosaic and raspberry mosaic viruses with tomato mosaic virus gave negative results.

From the above results it may reasonably be concluded that in Quebec streak or stripe of tomato is not a disease caused by *B. lathyri* but is a disease resulting from double inoculation, *i.e.,* with virus of potato mosaic and tomato mosaic (tobacco mosaic in this case being considered the same as tomato mosaic). Further work may show that other host plants function as potato, and more work is required to determine the proportions of the two juices necessary to develop streak of tomato.

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SEX CHANGES IN BIRDS

IN Science News Service, as printed in your issue of SCIENCE, March 6, 1925, appears an article relating to the changing of sex in pigeons. The observations of Dr. Oscar Riddle, of Carnegie Institution of Wash-