

base line, which lies to the north of the South Saskatchewan, and as far west as the cactus hills, and there can be little doubt that the range of *P. columbia nokomis* is coterminous with the range of this food plant *E. argentea*.

The food plants of the southern form (*P. columbia*) in Ontario, Quebec and in the State of Maine, so far fairly well identified, are *Prunus virginiana*, *Prunus pennsylvanica*, *Nemopanthes canadensis*, *Kalmia angustifolia*, *Rhodora canadensis*, *Salix* sp., *Abies nigra*, *Larix americana*. None of these are allied botanically to *E. argentea*, but I think it most likely that the larvæ would take very kindly to the leaves of our common *Shepherdia canadensis*.

On comparing a series of specimens of *columbia* with *columbia nokomis*—the Manitoba form—the difference is very obvious in the brighter colors and more sharply defined color areas. This difference may be in some measure from a difference of food, or from the much longer duration of daylight while the larvæ are feeding, or perhaps in part from the lower temperature in winter. And perhaps it may yet be shown that the north and north-west territories are the normal habitat and *nokomis* the normal form of the species, differentiated ages ago from *cecropia* by climatical and other conditions, and that the now southern form is from degenerate stragglers from the north.

The following points of difference may be noted between the *columbia nokomis* form and the *columbia* form, as represented by Ontario specimens, and as compared with Smith's description of *columbia*, parts of which are given in brackets. The standard of color is Ridgway's Nomenclature of Colors.

Antennæ, central shaft, bright reddish brown; pectinations, darker (black); palpi, light liver brown (dark maroon brown); dorsum of thorax, bright reddish liver brown, with a posterior pure white band (dark maroon with a short, grey band); under side of thorax, reddish liver brown (black); legs, reddish brown, pile darker (black, slightly tinged with brownish); abdomen, with alternate annulations, bright liver brown and pure white (black and dirty white).

Primaries, above, with a rather sharply elbowed pure white