

The subfamily Dolichoderinae contains six North American genera: Dolichoderus (Hypoclinea), Forelius, Tapinoma, Dorymyrmex, Liometopum, and Iridomyrmex. Iridomyrmex is essentially tropical in its distribution and only two species are known to occur in the United States,<sup>1</sup> the native *Iridomyrmex analis* Ern. André, common in cotton fields of the South, and the introduced species, *Iridomyrmex humilis* Mayr, or Argentine ant.

#### DESCRIPTION OF THE SPECIES.

Three forms only of the adults are found in the colonies of the Argentine ant, the females or queens, the workers, and the males. (See fig. 6.) Major and minor workers do not occur, and no workers seem to act in the capacity of soldiers or scouts more than others. As previously noted, the species was first described as *Hypoclinea humilis* by Dr. G. Mayr, in 1868, from workers collected in 1866 near Buenos Aires in Argentina, the original description appearing in the *Annuario della Societa dei Naturalisti di Modena*, volume 3, page 164. Following is Mayr's description of the species kindly furnished by Dr. W. M. Wheeler, of the Bussey Institution, Harvard University, from the original edition:

Oopera: Long. 2.6 mm. Sordide ferruginea, micans, mandibularum parte apicali flavescenti, abdomine nigrofusco, tarsis et nonnunquam tibiis testaceis; microscopice adpresse pubescens; absque pilis abstantibus; subtilissime coriaceo-rugulosa, mandibulis nitidis sublaevigatis punctis nonnullis; clypeus margine antico late haud profunde emarginatus; thorax inter mesonotum et metanotum paulo et distincte contractus, pronoto fornicato, mesonoto longitrorsum recto, transversim convexo, metanoto inermi longitrorsum fornicato, pronoto paulo altiori; petioli squama compressa rotundata.

At the request of the senior author, Dr. Wheeler prepared the following redescription of the worker, and descriptions of the queen and male, thus making a complete and comprehensive description of the species:

#### *Iridomyrmex humilis* Mayr.

*Worker:* Length 2.2-2.6 mm.

Head oval, broader behind than in front, with its posterior margin slightly concave in the middle. Eyes flattened, in front of the middle of the head. Mandibles with two larger apical and several minute basal teeth. Clypeus short, convex in the middle, with broadly excised anterior margin. Frontal area and groove present but rather indistinct. Antennal scapes extending about one-fourth their length beyond the posterior corners of the head. Joints 1-5 and the terminal joint of the funiculus distinctly longer than broad; remaining joints nearly as broad as long. Thorax slender, narrower than the head; broadest through the pronotum which is convex, rounded and nearly as long as broad. Mesonotum nearly as long as the pronotum, sloping, laterally compressed, in profile evenly continuing the contour of the pronotum. Me-

<sup>1</sup> An undetermined species of *Iridomyrmex*, apparently introduced, has been found by Dr. W. M. Wheeler in a greenhouse at Boston, Mass.

soëpinotal constriction rather deep, extending obliquely downward and backward on each side. Epinotum short, nearly twice as high as long, convex on the sides, with a short convex base, and a longer, flatter and more sloping declivity. Petiole small, less than half as broad as the epinotum; its scale in profile, compressed, cuneate, inclined forward, with flattened anterior and posterior surfaces and rather acute apex; seen from behind its border is entire and evenly rounded or even slightly produced upward in the middle. Gaster small. Legs rather slender.

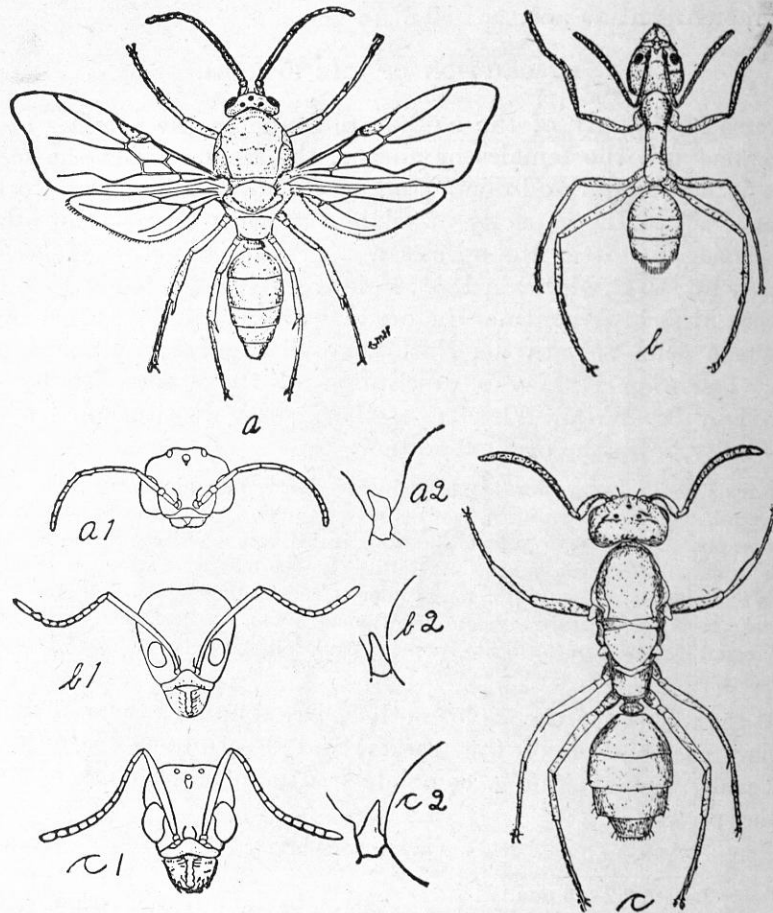


FIG. 6.—The Argentine ant, adult forms: a, Adult male; a1, head of male; a2, petiole of male; b, worker; b1, head of worker; b2, petiole of worker; c, fertile queen; c1, head of queen; c2, petiole of queen. All greatly enlarged. (Senior author's illustration.)

Body minutely shagreened or coriaceous, subopaque and glossy; mandibles, clypeus and anterior border of the head more shining. Mandibles minutely and rather obscurely punctate.

Hairs few, suberect, yellowish, confined to the mandibles, clypeus, tip and lower surface of the gaster. Pubescence short and uniform, grayish, so that the body has a slightly pruinose appearance.

Brown; thorax, scapes and legs somewhat paler; mandibles yellowish; apices of the individual funicular joints blackish.

*Female* (deälated): Length 4.5–5 mm.

Head, without the mandibles, but little longer than broad, with rather angular posterior corners, straight, subparallel sides and straight posterior border. Eyes large and rather convex. Mandibles and clypeus like that of the worker, scapes proportionally shorter and stouter. Thorax large, as broad as the head, elongate elliptical, nearly three times as long as broad. In profile the scutellum is very convex, projecting above the meso- and epinotum. Epinotum with very short base and long abrupt declivity. Petiolar node erect, more than half as broad as the epinotum. Gaster elliptical, somewhat shorter and a little broader than the thorax. Legs slender.

Sculpture like that of the worker but more opaque; mandibles and clypeus also less shining.

Scattered hairs more numerous than in the worker and also present in small numbers on the vertex, gula, mesonotum, prosternum, and fore coxae. There is also a row of short hairs along the posterior margin of each gastric segment. Pubescence distinctly longer, more silky, and denser than in the worker.

Dark brown; antennae, legs and posterior margins of the gastric segments reddish; mandibles, sutures of thorax and articulations of legs yellow.

*Male*: Length 2.8–3 mm.

Head much flattened; including the flattened eyes, as broad as long. Vertex and ocelli prominent. Cheeks short. Mandibles small, overlapping, with a single, acuminate apical tooth. Anterior clypeal border straight. Antennae slender; scape only between three and four times as long as broad; first funicular joint globose, broader than any of the other joints; second joint much longer than the scape; joints 3–5 growing successively shorter; joints 6–12 considerably shorter and more slender. Thorax very robust, elliptical, broader than the head, which is over-arched by the protruding, rounded mesonotum. Scutellum even more prominent than in the female. Epinotum with subequal base and declivity, the former slightly convex, the latter feebly concave, forming an angle with each other. Petiole small, its node with rather blunt margin, slightly inclined forward. Gaster very small, elongate elliptical, with small rounded external genital valves. Legs slender. Wings with a four-sided discal cell and two well developed cubital cells. The costal margin is depressed or folded in just proximally to the stigma.

Sculpture, pilosity and pubescence as in the worker; color more like that of the female, except that the antennae, legs, mandibles and internal genitalia are pale, sordid yellow. Wings smoky hyaline, with brown veins and stigma.

*I. humilis* belongs to a small group of neotropical species embracing also *I. iniquus* Mayr, *dispartitus* Forel, *keiteli* Forel and *melleus* Wheeler. The workers of *keiteli* and *melleus* may be at once distinguished by their color, the former having a yellowish brown head and thorax and the remaining parts brownish yellow; the latter being pale yellow with a blackish gaster and funiculus. In these and in *I. iniquus* and *dispartitus* the mesoëpinotal constriction is much deeper than in *humilis* and the meso- and epinotum are of a different shape. The mesonotum in profile does not form a continuous, even line with the pronotum and the epinotum is very protuberant and almost conical. *I. humilis* represents a transition from the above group of species to that of *I. analis* Ern. André, which is very common in the Southern States. This species has a shorter, more robust thorax, more like that of *Tapinoma*, and much less constricted in the mesoëpinotal region.

The above description was drawn from a number of workers, males and females taken from the same nest in Baton Rouge, La., by Mr. Wilmon Newell. The types described by Mayr were captured by Prof. P. de Strobel in the environs of Buenos Aires.