

Nest, das er fuer ein wahrscheinliches Zuechtungsprodukt der Arbeiter erklaert. Er schreibt (1900 p. 573): "This queen... could not possibly have existed as an insect larger than the largest workers (4,5 mm long) among the thousand or more collected and placed in the artificial nest March 10. Soon after the colony was taken it was kept for about two weeks in a glass jar and had been the subject of numerous experiments on the clustering habit. A large insect, 16 mm. long and with shining white band on the abdomen, could not have escaped my attention like the small mimetic ecitophile above described [Ecitonidial]. Her presence in the colony can only be explained on the assumption that she was developed within the nest during less than a month from an insect closely resembling a worker in size and appearance. The workers must have been feeding her abundantly, notwithstanding their devotion to the two introduced queens. Careful comparison of the largest workers with the female of *E. sumichrasti* [*nigrescens*] will show that there is nothing transcending the possibilities of insect development in supposing that a worker could be developed into a queen. This could perhaps, be accomplished by a certain amount of postmetamorphic growth with an ecdysis or two, but the differences are still too great to justify us in drawing this conclusion from circumstantial evidence". Die Koeniginnen A und C wurden am 12.V. getoetet, Nr. B starb am 19.V. Nach meiner Meinung war B die Mutter von A und C; es ist aber auch moeglich, dass C aus der Kolonie vom 10.III. stammte. Auf alle Faelle war das Tier, von Arbeitern bedeckt, Wheeler's Aufmerksamkeit entgangen; denn die Hypothese der Aufzucht aus einem Arbeiter ist bei der Anwesenheit von zwei anderen Koeniginnen als absurd zu bezeichnen.

Wheeler teilt auch interessante Beobachtungen mit ueber Schwarmbildung im kuenstlichen Nest (1900, p. 569), sowie ueber den Geotropismus der Arbeiter ("the ants... tend to hang head downwards when they cluster on one another"). Besonders wertvoll ist seine Bemerkung ueber Dauernester (p. 570): "The nomadic habits which have been observed in these forms [of certain tropical Ecitons], were not observed in *E. sumichrasti* [*nigrescens*]. During the winter and spring months, at least, the Ecitons I have observed occupy the same nest. This they probably continue to do till their young are raised".

Am 13.X.1899 fanden Wheeler, Melander und Brues circa 100 gefluegelte Maennchen von *nigrescens* im Nest unter einem flachen Stein. Die Maennchen wurden bis zum 22.X. in einem kuenstlichen Nest gehalten. Wheeler & Long (1901) teilen einige Beobachtungen mit ueber ihren angenehmen Geruch und die Aufmerksamkeit, deren sie sich vonseiten der Arbeiter erfreuen. Die Mandibeln der Maennchen werden nicht als "clasping organs" erklaert, sondern als sekundaere sexuelle Charaktere "belonging to the same category as the much larger mandibles of the ... Lucanidae or the cephalic and pronotal horns of male ... Scarabaeidae", — sicher eine phantastische "Erklaerung". Wichtiger sind folgende Beobachtungen (1901, p. 168): "During the morning hours the ecitons remained very quiet, hanging in clusters in an angle formed by the soil and the glass of the jar, or between the glass and the earth of the Lubbock nest after being removed to the latter. The males, concealed beneath the mass of workers, were usually huddled together, with their head hidden in holes in the earth and their abdomens and the tips of their wings projecting. They appeared to be sleeping. Between one and two o'clock in the afternoon the whole colony awoke. The males would begin to climb the glass sides of the jar in perfectly perpendicular paths, falling to the bottom from time to time but again persistently ascending. The workers would often file up the sides of the jar with