



## DARK FOREST BEES IN POLISSYA OF UKRAINE

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The dark or black (*nigra*) forest bee, which is common in the Ukrainian Polissya, is a population of the European black (dark) bee (*Apis mellifera mellifera*), a subspecies of honey bee (*Apis mellifera*). In the Ukrainian Polissya, this bee lives in a wild state in hollows. It is also kept in beehives. The dark forest bee was formed in the harsh climatic conditions of Polissya, and therefore is characterized by high winter resistance and resistance to diseases. It is a valuable genetic material. After the accident at the Chornobyl Nuclear Power Plant, people were resettled from a large part of the Ukrainian Polissya and the colonies of these bees were abandoned. This led to a decrease in their population. Therefore, the dark forest bee needs to be repopulated and studied her biological and economic characteristics, which became the aim of our research.

The research, the object of which was the colonies of the dark forest bee population, was conducted in the Polissya Natural Reserve of Ukraine. The determination of biological and economic characteristics of bee families was carried out according to generally accepted methods.

It is found that at present the largest number of dark forest bee families is concentrated in the Polissya Natural Reserve, located in Ovruch and Olevsk districts of Zhytomyr region. There are 1800 colonies kept in wild hives. These bees have a dark gray color, without yellowness. The average weight of one-day bees is 110 mg, the weight of a virgin queen is 190 mg, of a laying queen, is 210 mg, the length of the proboscis of a worker bee is 5.9–6.3 mm, of the third tergite, is 5 mm, the cubital index is 1.4–1.9, discoidal displacement is negative. The spring development of bee families begins late, but occurs quickly and ends by mid-June. In the period of intensive development of queens have a high reproductive capacity – 1500–2000 eggs per day. These bees cap honey with a white (dry) capping, propolize bikes moderately and have increased aggressiveness. During the inspection of bikes bees are very excited, go down hanging in clusters on the lower bars of the frame. Bees are very full of swarms. 80–90 % of all bee families in the apiaries are in the full of swarms state. The average number of capped queen cells is 25–30. When destroying queen cells or by a sharp expansion of a bike the swaddlings do not stop until there is a honey flow with an intensity of 2.5–3.0 kg per day. The honey performance for keeping in wild hives is 10–15 kg.

Thus, biological and economic characteristics of the bee families under research correspond to a dark forest bee. The Polissya Natural Reserve of Ukraine focuses on 1.800 colonies of these bees. They can be a genetic reserve for use in breeding with the improvement of existing and the removal of new breeds with high winter resistance and resistance to diseases.

**Keywords:** dark forest bee, the Ukrainian Polissya.