Tuber Melanosporum - Innoculation (infection) of Black Perigord for Plantation Production

• *Tuber melanosporum* is an ectomycorrhizal ascomycete producing edible ascocarps. The prevalent view is that this species strictly selfs, since genetic analyses have never detected heterozygotic profiles in its putatively diploid/dikaryotic gleba.

• 2008 Data called for a profound re-examination of *T. melanosporum* mating system, life cycle and strategies for managing man-made plantations Duckett Lab Analysis in 2007-2009 drew attention of the scientific community and Duckett

life cycle

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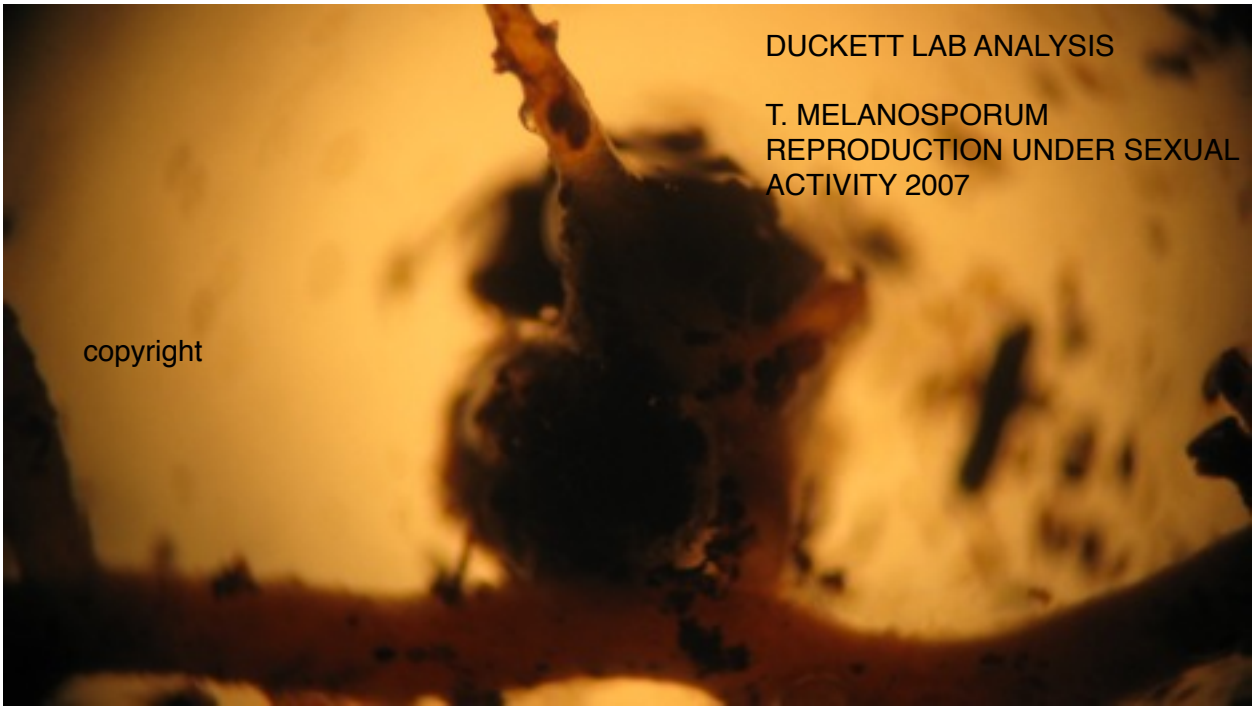
Lab to understand the reproductive mode and the distributional



pattern of genetic variability in T. melanosporum. The growth and survival of many forest trees and shrubs rely heavily on root colonization by ectomycorrhizal fungi that mediate nutrient and water uptake in exchange for phytosynthetically derived carbon compounds. The most prized of these being the limited T. melanosporum and T magnatum. Controlled experimental efforts to clone these species have proven unsuccessful and have challenged the hypothesis of selfing in truffles.

With conclusive evidence that T. melanosporum is not strictly a selfing species 2007 Data called for a profound re-examination of *T. melanosporum* mating system and correctly modelling the pattern of distribution of genetic diversity within and among natural populations.

life cycle