Second Symposium on Hypogeous Fungi in Mediterranean basin (HYPOGES2) & Fifth congress Tuber aestivum/uncinatum European Scientific Group (TAUESG5)

April, 9th – 13th, 2014, Rabat, Morocco
TRUFFLE SPECIES NEWLY DISCOVERED IN TURKEY

Aziz TÜRKOĞLU1, Michael A.CASTELLANO2, James M.TRAPPE3, Mehrican Y. GÜNÖR1

1Biology Department, Science Faculty, MuğlaSıtkıKoçman University, Muğla, 48000 Turkey; e-mail: turkoglu.aziz@gmail.com
2Department of Agriculture, Forest Service, Northern Research Station, ForestrySciences Laboratory, Corvallis, Oregon 97331, United States of America;mcastellano@js.fs.fed.us
3Department of ForestEcosystemsandSociety, Oregon State University, Corvallis, Oregon 97331, United States of America;trappej@onid.orst.edu

Key words: Truffle, Ascomycota, Basidiomycota, new records, new species

Turkey has a potentially rich diversity of truffle taxa due to its unique phytogeographical location between Europe, Middle East, and Asia. Over 2000 fungal taxa have been recorded from Turkey (Sesli and Denchov 2009) but to date only 42 truffle taxa have been reported from Turkey (Türkoğlu and Castellano, 2013, 2014). All specimens were collected all regions except Eastern Anatolian in Turkey. Some of the specimens were found with the help of a truffle dog. Macromorphological characteristics (size, fresh color, bruising reactions, and odour) of specimens were recorded, after which each was photographed in its natural habitat. Micromorphological characters were recorded after tissue sections were rehydrated in distilled water, 3% KOH or Melzer’s reagent. Spores and sterile tissues were photographed with a compound microscope. All collections are deposited in the herbaria of MuğlaSıtkıKoçman University and Oregon State University. We report for Turkey the first records of 19 previously described truffle species plus five recently discovered, undescribed but provisionally named species.

The first records of 19 truffle species are: Elaphomycesleucomuscarus Vittad. (Locality. Artvin); Elaphomycesmuricatus Fr. (Locality. Artvin); GeneasphaericaTul. & C. Tul. (Locality. İzmir); Terfeziaclaveryi Chatin (Locality. Denizli, Konya, Urfa, Aksaray, Diyarbakır, Karaman); Alpovadipihlophoeus (Zeller & C.W. Dodge) Trappe & A.H. Sm. (Locality. Artvin); Gautieriaotthii Trog (Locality. Bolu, Kastamonu); Gautieriaretrigosa Th. Fr. (Locality. Bolu); Gautieriatrabutii (Chatin) Par. (Locality. Burdur); Hymenogastercitrinus Vittad. (Locality. Samsun); Hymenogasterhessei Soehner (Locality. Samsun, Kastamonu); Hymenogasterluteus Vittad. (Locality. Osmaniye, Isparta); Hymenogasterlycoperdineus Vittad. (Locality. Isparta); Hysterangiumclathroides Vittad. (Locality. Kütahya); Hysterangiumepiroticum Pacioni (Locality. Kastamonu); Hysterangiumfragile Vittad (Locality. Kastamonu, Ordu); Hysterangiumnephriticum Berk. (Locality. Sakarya); Leucogasterozzinusiu (Cavara & Sacc. ) Mattir. ex Zeller & C.W. Dodge (Locality. Kastamonu, Trabzon); Octaviaangustosperma Vittad. (Locality. Ordu, Trabzon); Protopoglossum aromaticum (Velen.) J.m. Vidal (Locality. Kastamonu, Artvin).

Undescribed but provisionally named new truffle species:
1. Gymnomycesgilüsmae Türkoğlu, Castellano & Trappe (Locality. Muğla).
2. Melanogasterdenizliana Türkoğlu, Castellano & Trappe (Locality. Denizli).
5. TubervenedenaTÜrkoğlu, Trappe & Castellano (Locality. Osmaniye).

Acknowledgement:
This study was financed by The Scientific and Technological Research Council of Turkey (TUBİTAK-111T530).