

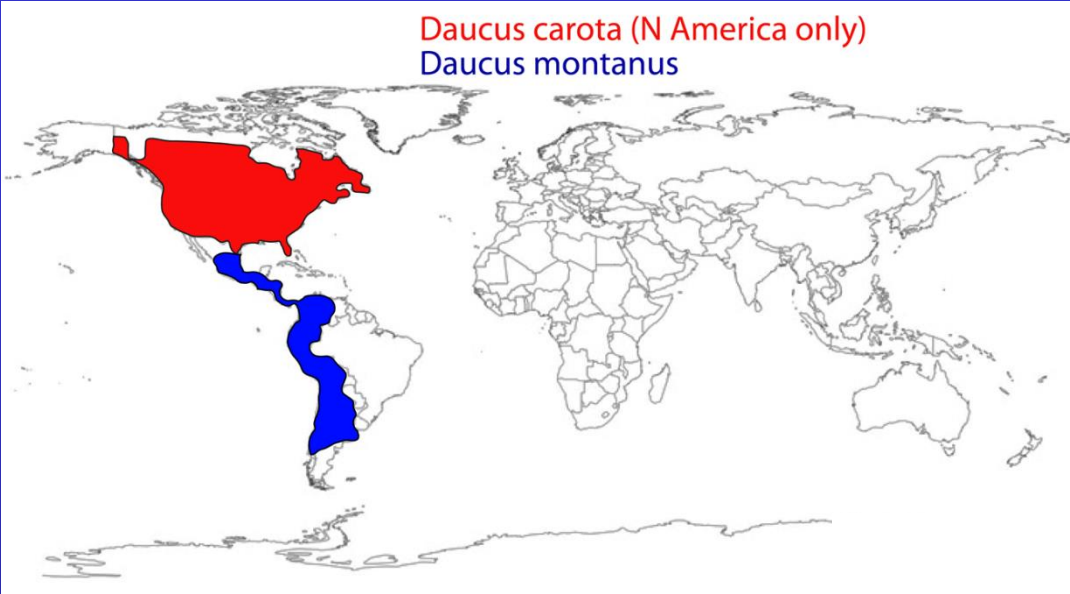


Turkmenistan and Uzbekistan, Simon, 1989
 Poland, Syria, Turkey, Greece, Simon, 1999
 Portugal, 2001, Simon
 Uzbekistan, Simon, 2004
 Tunisia, Simon, 2007
 Tunisia, Simon and Spooner, 2009

Western USA, Simon and Spooner, 2010
 Western USA, Simon, 2011
 Morocco, Simon and Spooner, 2012
 Morocco, Spooner, 2013
 Spain, Simon, Martínez, and Spooner, 2016

Distribution of *Daucus*

Daucus carota (N America only)
Daucus montanus



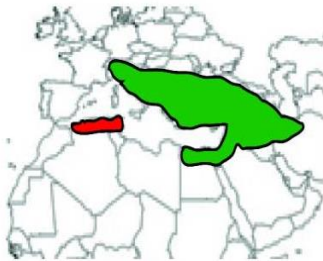
Daucus glochidiatus
Daucus pusillus



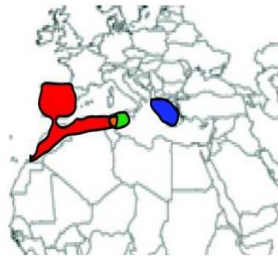
The major taxonomic variation of *Daucus* is found in the Mediterranean area



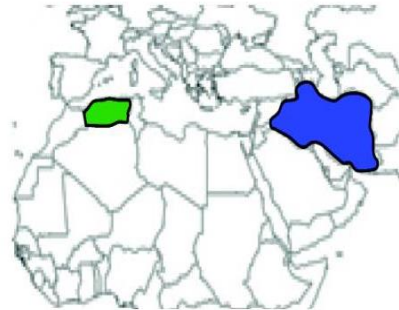
Daucus arcanus
D. gracilis



D. reboudii
D. virgatus
D. broteri



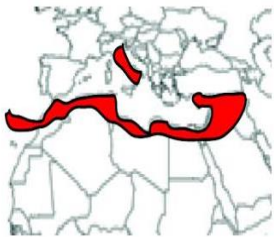
D. crinius
D. setifolius
D. conchitae
D. capillifolius



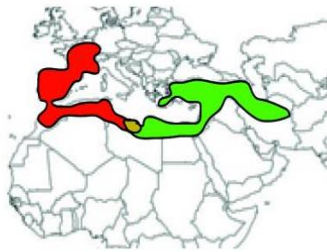
Daucus biserratus
D. microscias



D. durieua



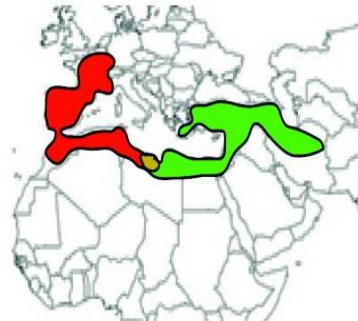
D. aureus



D. littoralis
D. muricatus



D. hochstetteri
D. involucratus
D. jordanicus
D. tenuisectus



Daucus littoralis
Daucus muricatus



D. syrticus/ D. sahariensis
(conspicuous?)



ATLANTISCHER OZEAN

Golf von Biscaya

FRANKREICH

PORTUGAL

ATLANTISCHER OZEAN

MITTELMEER

ALGERIEN

MAROKKO

SPANIEN
ESPAÑA
100 km



© RB-DESKKART well-attas.de







Expedition 1, June 5-18, 2016

MAP LEGEND



Expedition 2,
Aug 23-Sept 6, 2016





Expedition 3,
Oct 7-10, 2016

Daucus (Pseudorlaya) pumila



Daucus (Pseudorlaya) pumila/miniscula



Daucus muricatus



Daucus crinitus



Daucus durieua



Daucus arcanus



Daucus aureus



Daucus setifolius



Daucus carota subsp. *carota* and subsp. *maximus*



Allium ampeloprasum



Spain's Balearic Islands

200kms
Majorca to Barcelona, Spain



<---150kms
Ibiza to Valencia, Spain



Mediterranean Sea



Map by Entbert with bugbog additions



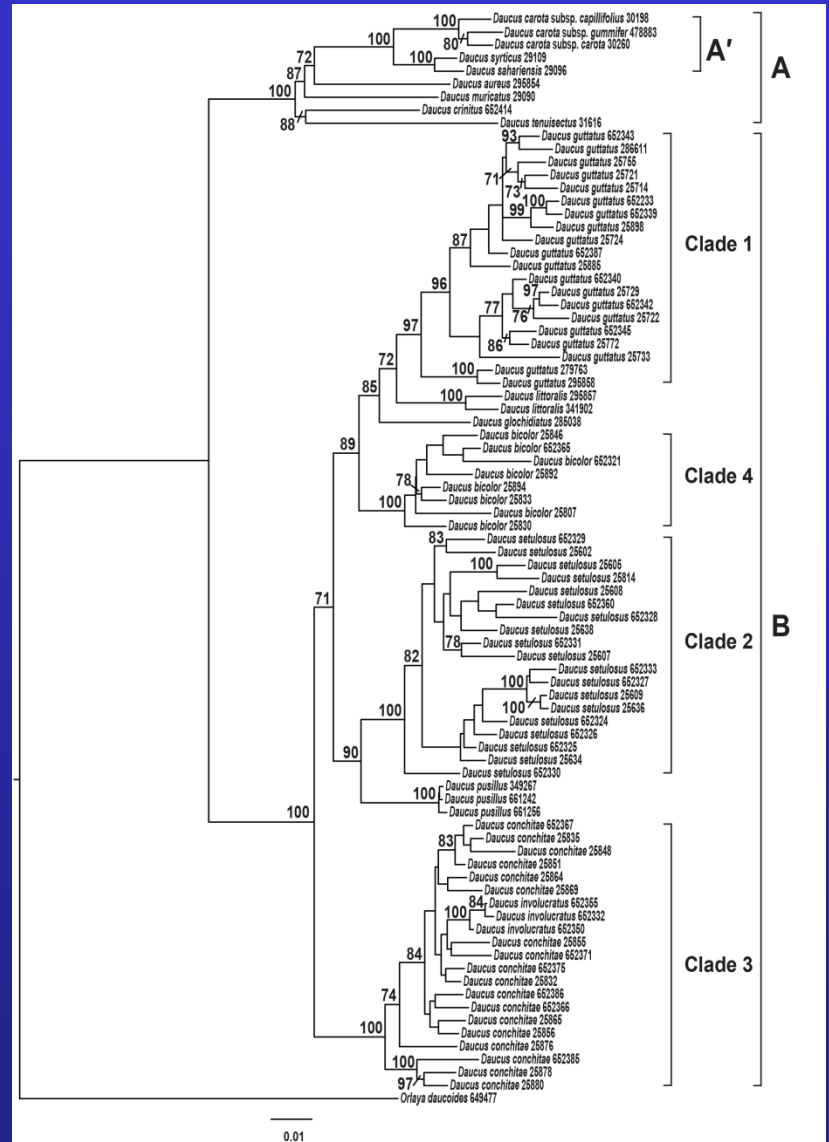
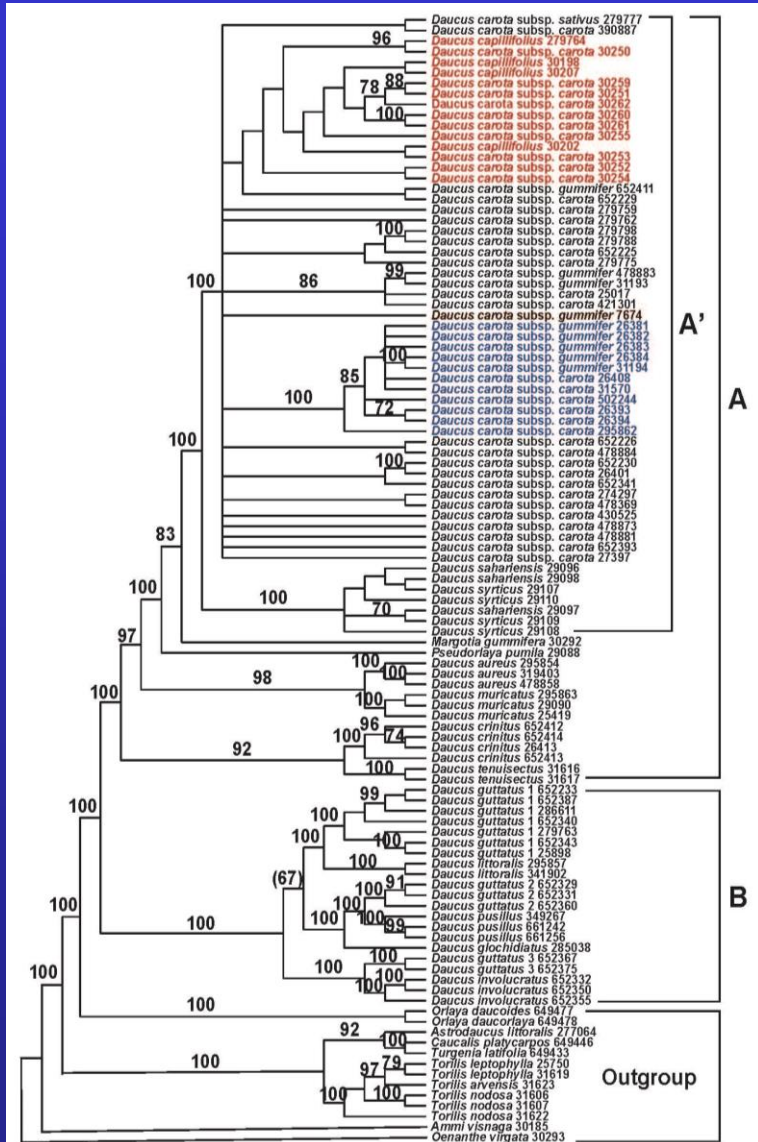
Daucus carota subsp. *gummifer*”



Daucus carota subsp. "gummifer"

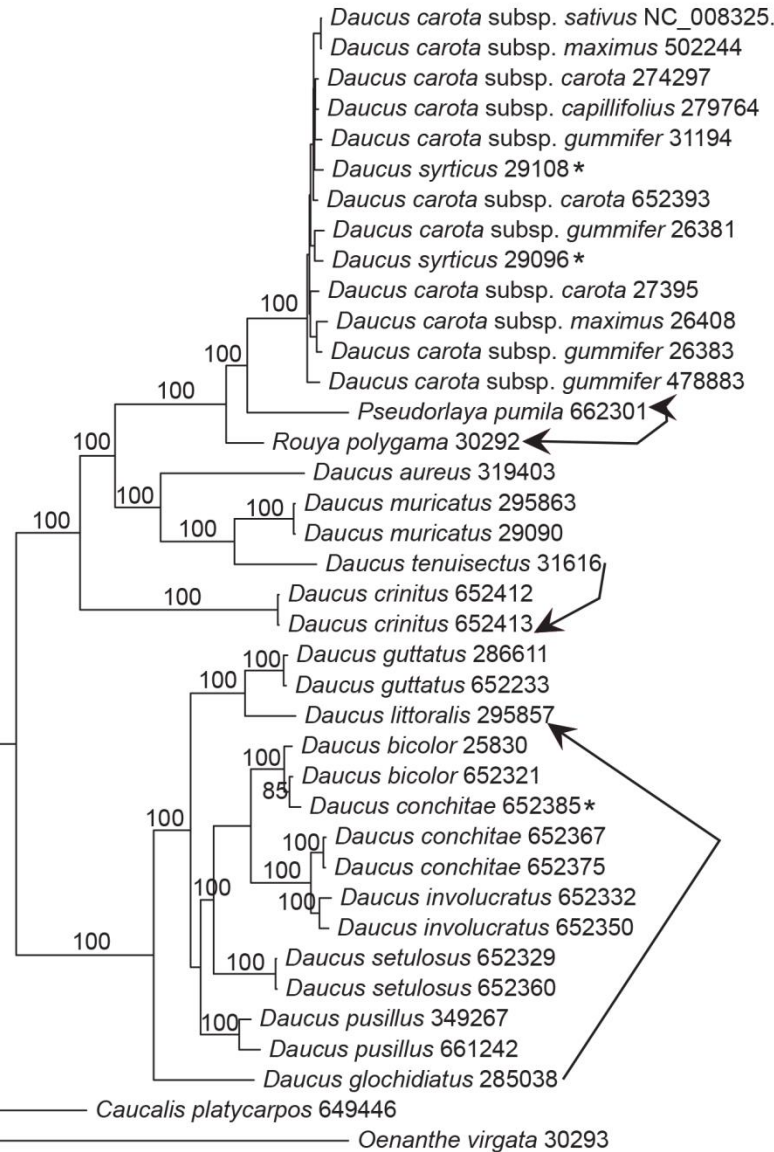


Daucus nuclear results, 94 orthologs, 107 accessions, concatenated length 111,166 nt (Arbizu et al., 2014, 2016)

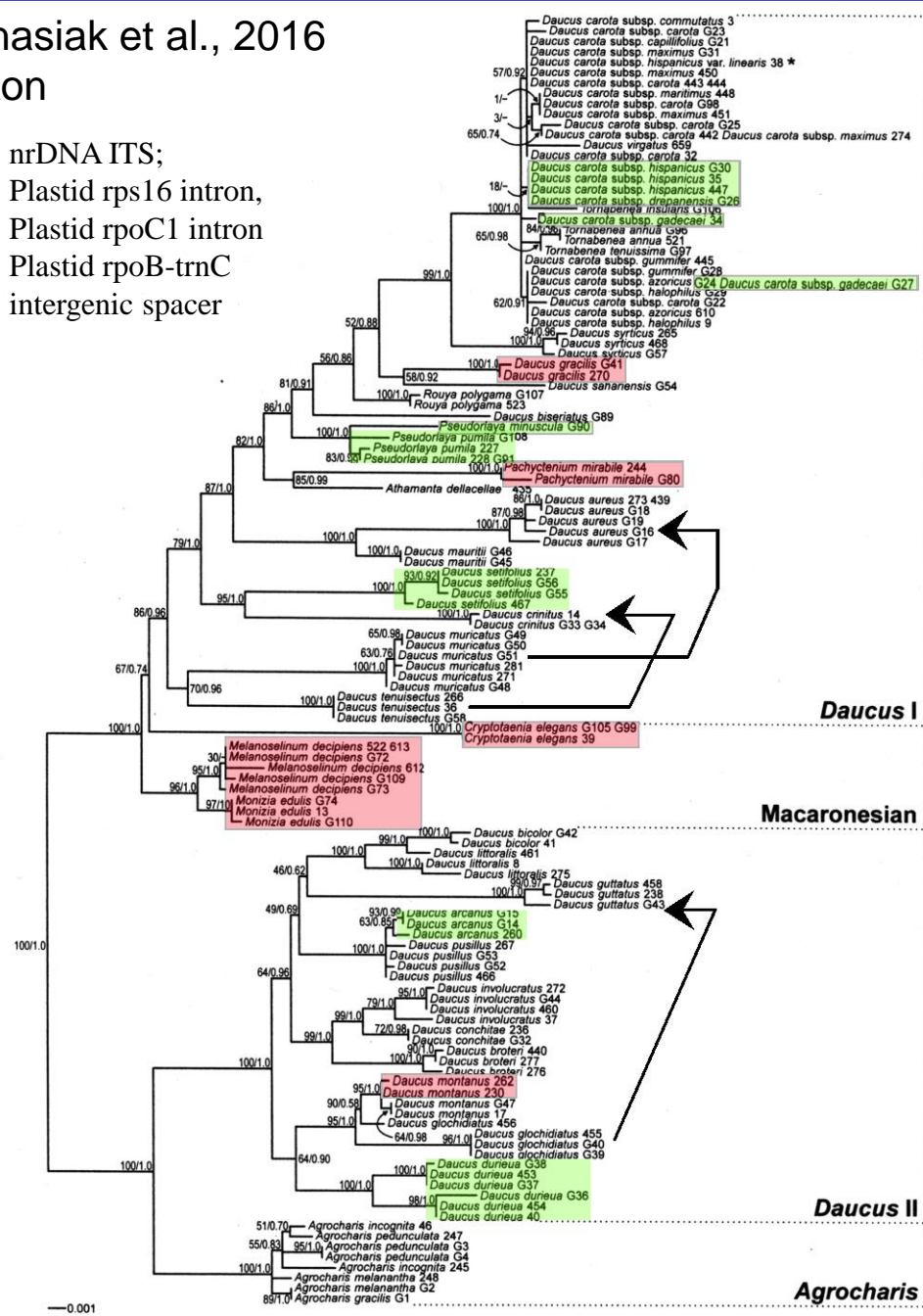


All data, 1 of 25 phylograms, with bootstrap values

Banasiak et al., 2016 Taxon



- nrDNA ITS;
- Plastid rps16 intron,
- Plastid rpoC1 intron
- Plastid rpoB-trnC
- intergenic spacer



Daucus I

Macaronesian

Daucus II

Agrocharis

