

Supplementary material

Supplementary material Appendix 1. Examined material. The specimens are listed in alphabetical order. If there is not any herbarium acronym at the end of the locality, it means the specimen deposited in HUB.

INGROUP. *Tordylium aegaeum* Muğla, Marmaris, Ören, *Pinus brutia* forest, c. 0-50 m, 09 vi 2014, ADK 4175 & Golshan Zare. Antalya, Kemer, Kuzköyü, Tahtalı Mountain, 590 m, 03 vi 2014, ADK 4116 & G. Zare. Muğla, Marmaris, Bozburun, *Sarcopoterium* shrub, 22 m, 25 iv 2014, ADK 4061 & G. Zare. Muğla, Marmaris, Bozburun, Kapakya around, 0-5 m, 25 iv 2014, ADK 4062 & G. Zare. Muğla, Datça, Emecik village, 108 m, 25 iv 2014, ADK 4064 & G. Zare. *T. aegyptiacum* Şanlıurfa, Karaköprü, step, 630 m, 22 iv 2013, ADK 3775 & G. Zare. Şanlıurfa, Between Şanlıurfa and Mardin, under the *Pistacia* garden, 22 iv 2013, ADK 3772 & G. Zare. *T. apulum* Muğla, Köyceğiz, Sultaniye, around Hamitköy, 0-5 m, 17 iv 2013, ADK 3742 & G. Zare. Balıkesir, Ayvalık, Alibey Island, 0-100 m, olive garden, 22 iv 2013, ADK 4037 & G. Zare. Antalya, Olympos, Yanartaş, 161 m, 23 iv 2014, ADK 4045 & G. Zare. Muğla, From Ula to Köyceğiz, between Hamitköy and Sultaniye, 26 iv 2014, ADK 4066 & G. Zare. *T. brachytaenium* Antalya, Altınyaka road, Hurma village, 189 m, 27 iv 2014, ADK 4080 & G. Zare. Antalya, Tahtalı Mountain, Hurma village, stony area, 137 m, ADK 4115 & G. Zare. Antalya, Between Antalya and Kemer, Akyarlar tunnel, scree, 100 m, 1 v 1979, H. Peşmen 4485 and A. Güner. *T. cappadocicum* Erzincan, Kemaliye, c. 900 m, 25 vi 2015, ADK 4478 & G. Zare. *T. elegans* Niğde, Ulukışla, Çiftehane, 910 m, 10 vi 1963, Hub.-Mor. 12033. İçel, Pozantı, from Pozantı to Karaisalı, under the *Pinus brutia* forest, 12 vi

2013, *ADK* 3926 & *G. Zare*. *T. hasselquistiae* Hatay, Maraşboğazı, edge of road, 24 iv
2013, *ADK* 3819 & *G. Zare*. Hatay, Belen, c. 750 m, scree, 24 iv 2013, *ADK* 3823 & *G.*
Zare. *T. hirtocarpum* Chios Island, Anavartos, May 1975 (W). *T. ketenoglui* Antalya,
Akseki, Tuzaklı Mountain, Taşlıca village, Velioluğu fortaine, rocky, 817 m, 05 vi 2014,
ADK 4136 & *G. Zare*. Antalya, Gündoğmuş, Alıkbazı area, 04 vi 2014, *ADK* 4127 & *G.*
Zare. Antalya, Gündoğmuş, Köprülü road, Dağdere around, 489 m, 04 vi 2014, *ADK*
4130 & *G. Zare*. Antalya, Derebucak, Çamlık district, south slope, 1475 m, *P. nigra*
culture forest clearings, 06 vi 2014, *ADK* 4161 & *G. Zare*. Antalya, Akseki, Çukurköy,
Istarlas around, stony area, 850-1000 m, 3 vi 1996, *A. Duran* 3865 (type specimen). *T.*
lanatum Antalya, Elmalı, Akçay, Gömbe village, Uçansu road, macchi clearings, 1485
m, Yumru Mountain slopes, 24 iv 2014, *ADK* 4054 & *G. Zare*. Ibid, 03 vi 2014, *ADK*
4124 & *G. Zare*. Antalya, Elmalı, from Elmalı to Finike, before Arif village, Arykanda
around, 663 m, 24 iv 2014, *ADK* 4060 & *G. Zare*. Antalya, 3 km south of Elmalı,
calcareous area, 25 vi 1975, *R. Çetik* 1942 (ANK). *T. macropetalum* İzmir, Ödemiş,
between Birgi and Bozdağ, c. 10 km, 990 m, 13 vii 2013, *ADK* 3999 & *G. Zare*. *T.*
maximum İstanbul, Ayvalık, Çınarcık, Karpuz stream, 10 m, 01 viii 1981, ŞY 4388
(Herb. Yıldırımılı). *T. officinale* İstanbul, Rumelihisarı, 5-20 m, 11 vi 1944, *M. Başarman*
3282 (ISTF). *T. pestalozzae* Muğla, between Dalyan-İztuzu, edge of Sülüngür Lake,
calcareous area, 37 m, 17 iv 2013, *ADK* 3754 & *G. Zare*. Muğla, Köyceğiz, Yangı
village, Yangı valley, metamorphic rocky, 50-100 m, 17 iv 2013, *ADK* 3749 & *G. Zare*.
Isparta, Sütçüler, Çobanisa, calcareous area, macchi, 1080 m, 26 vi 1974, *Güner* 1085 &
Peşmen. *T. pustulosum* Antalya, Alanya, Bektaş graveyard around, 304 m, rocky, 06 vi
2014, *ADK* 4162 & *G. Zare*. İçel, Mut, Karaekşi, 520 m, 10 v 2012, *A. Duran* 9567 & *M.*

Öztürk, M. Çelik. *T. svriacum* Antalya, Altinyaka road, Hurma village, under the *Pinus brutia* forest, 189 m, 27 iv 2014, ADK 4081 & G. Zare. Niğde, from Çiftehane Alihoca village, 3 km, 10 v 2013, ADK 3873 & G. Zare. İçel, Çamlıyayla, Beylice village, 12 vi 2013, ADK 3923 & G. Zare. *T. trachycarpum* İçel, from Gülek to Çamalan, under *Pinus* forest, 12 vi 2013, ADK 3919 & G. Zare. Hatay, St. Pierre church around, c. 120-130 m, 24 iv 2013, ADK 3825 & G. Zare.

OUTGROUP. *Conium maculatum* Isparta, SW of Gönen, 800m, 22 vi 1078, H. Peşmen 3982. *Ferula tingitana* Antalya, Alanya, Çamlıca village, 99 m, *Pinus brutia* clearings, 13 vi 2006, A. A. Dönmez 13563. *Heracleum pastinacifolium* Karabük, Keltepe, calcareous, 1800-1900 m, 16 vii 2004, A. Duran 6769. *Heracleum sphondylium* Artvin, Karagöl, 1750 m, alpine meadow, 28 vii 2004, H. Altınözlü 4120. *Malabaila secacul* Ankara, Beytepe, back of Beyaz House, valley, step, c. 1000 m, 23 v 2013, ADK 4036. *Ormosciadium aucheri* Malatya, Doğanşehir, between Erkenek and Gölbaşı, gypseous area, 1450 m, 20 vi 1987, E. Aktoklu 0541 & A. Güner. *Pastinaca armena* Kars, Posof, Kediye sapling conservation area, 2050 m, 05 viii 1982, N. Demirkuş 1783. *Pastinaca sativa* Sinop, Zindan-Çat-Soğukoluk junction, 1003 m, 08 viii 2009, A. A. Dönmez 16095. *Peucedanum chryseum* Konya, Ermenek, around of Kazancı, 650-850 m, 21 vi 1984, H. Sümbül 3014. *Peucedanum longifolium* Kayseri, Sarız, Kelelikoluk village, Işık Mountain, 2400-2600 m, 11 ix 1991, H. Duman 4442. *Peucedanum obtusifolium* Istanbul, N of Terkos Lake, sandy area, 22 viii 1969, A. Baytop 16108. *Stenotaenia macrocarpa* Kahramanmaraş, Göksun, Koçcağız village, *Pinus* forest, 1800 m, 23 viii 1977, B. Yıldız 1551. *Trigonosciadium intermedium* Muş, between Varto-Hınıs, 1600 m, 08 vi 2002, A. Duran 5936. *Trigonosciadium viscidulum* Hakkari, W of Kamışlı village,

step, c. 1750 m, 5 vi 1978, *A. Güner* 1772. *Zosima absinthifolia* İçel, Pozantı, Karaisalı, c. 1200 m, 12 vi 2013, *ADK* 3920 & *G. Zare*.

Supplementary material Appendix 2. Characters and character statements used in the cladistics analysis

Life form

1. Perennial monocarpic herb (0); annual herb (1); biennial herb (2); perennial or biennial herb (a); annual or biennial herb (b).

Stem

2. Non - triquetrous (0); triquetrous (1).
3. Indumentum at base glabrous (0); pilose (1); woolly-lanate (2); scabrid (3).

Leaves

4. Simple-1 pinnate (0); 2-3-pinnate (1), 4-pinnate (2), ternate (3).
5. Leaflets of basal leaves, sessile-subsessile (0); petiolate (1).
6. First leaflets of basal leaves, ovate (0); obovate (1); rounded (2); elliptic (3); linear (4); filiform (5); oblong (6).

Bracts

7. Numbers, absent-highly reduced (0); less than 10 (1); more than 10 (2).
8. Shape, lanceolate (0); linear (1); filiform (2).
9. Appressed to umbel rays (0); reflexed (1).
10. Indumentum, glabrous-glabrescent (0); scabrous (1); pubescent (2); hirsute (3); hispid (4).

Umbels

11. Purplish black structure in the middle of umbels, absent (0); present (1).
12. Rays in fruit, not contracted (0); contracted (1); patent (2).
13. Rays, unequal (0); subequal (1); equal (2).
14. Rays, slender (0); stiff (1).
15. Rays indumentum, glabrous (0); scabrous (1); pubescent (2).

Bracteoles

16. Absent or highly reduced (0); number less than 5 (1); more than 5 (2); more than 20 (3).
17. Longest bracteoles, shorter than fruiting pedicels (0); longer than fruiting pedicels (1); 2-3 x as long as fruiting pedicels (2).
18. Shape, lanceolate (0); linear (1); filiform (2); spatulate (3).
19. Indumentum, glabrous-glabrescent (0); scabrous (1); pubescent (2); hirsute (3); hispid (4).

Flowers

20. The central ones, sessile-subsessile (0); pedicellate (1).
21. Sepals, absent (0); present (1).
22. Color, yellow (0); white (1); purplish (2).
23. Indumentum, glabrous (0); dorsally hairy (1) Note: The rare hairs on the petal are ignored.
24. Some of petals, no-lobed (0); subequally 2-lobed (1); unequally 2 lobed (2); equally 2 lobed (3).
25. Longest petals shorter than 5mm (0); longer than 5mm (1); shorter-longer 5 mm (a).

Mericarps

26. Color, brown (0); bluish grey (1); reddish (2).
27. Monomorphic (0); dimorphic (1).
28. Hemispherical mericarp diameter, less than 4 mm (0); more than 4 mm (1).
29. Non-hemispherical mericarps, strongly compressed dorsally (0); compressed laterally (1).
30. Strongly compressed mericarps dorsally, orbicular & suborbicular (0); ovate & elliptic (1); obovate (2); oblong (3); orbicular-suborbicular & ovate-elliptic (a).
31. Strongly compressed mericarps dorsally length, equal-longer than 5 mm (0); shorter than 5 mm (1); shorter-equal or longer than 5 mm (a).
32. Strongly compressed mericarps dorsally, winged (0); unwinged (1).
33. Strongly compressed mericarps' wing broad (mm), 1-1.2 (0); 0.7-0.8 (1); 0.5-0.6 (2); ≥ 1.5 (3).
34. Strongly compressed mericarps' wing, smooth (0); strongly moniliform (1); weakly moniliform (2).
35. Strongly compressed mericarps' margin thickness (mm), 0.1-0.5 (0); 1 (1) ≥ 1.5 (2).
36. Strongly compressed mericarps' dorsal face vittae number, absent (0); 12 (1); 1-3 (2); 4 (3).
37. Dorsal face disc indumentum, glabrous-glabrescence (0); stalked vesicular (1); tubular (2); scabrous (3); stalked vesicular & minutely vesicular (4); minutely vesicular & tubular (5); stalked vesicular & minutely vesicular & tubular (6).

38. Dorsal face wing indumentum, glabrous & glabrescence (0); minutely vesicular (1); tubular (2); scabrous (3); stalked vesicular & minutely vesicular & scabrous (4); minutely vesicular & scabrose (a).
39. Commissural face disc indumentum, glabrous & glabrescence (0); tomentose (1); tubular (2); pilose (3); minutely vesicular (4).
40. Commissural face wing indumentum, glabrous & glabrescence (0); tomentose (1); tubular (2); minutely vesicular (3).
41. Commissural vittae number, absent (0); 2 (1); 4 (2); 10 (3); 2-4 (a).
42. Commissural vittae, divergent (0); parallel (1).

Supplementary material Appendix 3. Morphological character matrix used in the maximum parsimony analysis of *Tordylium* and outgroup from Turkey. The letters a, b and c are employed in polymorphic entries. A dash is used for inapplicable data. A question mark is used for missing data.

1

1111111112 222222223 33333333344

1234567890 1234567890

1234567890 123456789012

<i>Conium maculatum</i>	b002111000	0110010001	0100?00-10	11---00-0-0-
<i>Peucedanum obtusifolium</i>	0001141110	0020020001	0000000-00	003002000020
<i>Peucedanum chryseum</i>	0001140---	0000020101	0000000-01	0020?200001?
<i>Peucedanum longifolium</i>	0003151110	0220020201	0000000-03	000002000020

Heracleum pastinacifolium 0000000--- 0001110011 1100000-03
00200300000-

Heracleum sphondylium 0030100--- 0100110211 1000?00-02 001003000010

Stenotaenia macrocarpa 2030000--- 000010---1 1210000-02 003001440010

Trigonosciadium viscidulum 2100060--- 0010110131 1103000-00
003003330020

Trigonosciadium intermedium 2100061203 0010211121 1103100-00
0000035300??

Ferrula tingitana 0002140--- 0010010001 0000000-03
0000020000a1

Ormosciadium aucheri 1001152200 0000031101 0102020-01 10211010110-

Pastinaca sativa 2010000003 0100200021 0000?00-01
002003000011

Pastinaca armena a030001003 0010110131 1000000-00
0020025a0010

Zosima absinthifolia 0031162011 0020130111 0100?00-02
0030035a0011

Malabaila secacul 0010061013 0020110031 0000?00-02
000002000011

Tordylium brachytaenium 1010001111 0000111111 0102100-01 101213401010

Tordylium pestalozzae 1030001011 0211111010 0102100-01 000113601010

Tordylium pustulosum 1030101211 0000110211 0102020-00
a01103403021

Tordylium ketenoglui 1010001111 0000111111 0102100-01
102003101011

Tordylium lanatum 1021060210 012010---1 1101011100
000003411111

Tordylium hasselquistiae 1030122211 0101121211 0101a20-00 000123400021

Tordylium trachycarpum 1010022211 0010122211 0102100-0a 100003401021

Tordylium syriacum 1030101214 0101112340 1101000-00
0001135a1110

Tordylium maximum 1010021104 000111114? 1012000-02
000003220010

Tordylium macropetalum 1010021104 0001110140 1012100-01 000113521011

Tordylium aegyptiacum 1021130111 1100110211 1103101100 000103411311

Tordylium elegans 1030131211 0110110211 0113001000
000003000010

Tordylium apulum 1010001110 0021110001 1103a00-00
000111411130

Tordylium cappadocicum 1030001014 0000111011 1001100-01 a0?1135?1111

Tordylium aegaeum 1010001111 0000112111 0102100-01
001113a01010

Tordylium officinale 1010002211 000012121? 0002100-01
100113411?10

Tordylium hirtocarpum 1010001011 0020111010 010?000-01 100113521?10

For the character 1; $a=0+2$, $b=1+2$: char. 26, 30, 31; $a=0+1$: char. 38; $a=1+3$: char. 40;
 $b=1+2$.