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Salvia Cinsi Hemisphace Seksiyonun (Mentheae; Nepetoideae; Lamiaceae) Perikarp Ånce YapÅsÅ±

Pericarp Ultrastructure of Salvia Section Hemisphace (Mentheae; Nepetoideae; Lamiaceae)

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Lamiaceae familyasÃ„Â± iÃfÃ§indeki Nepetoideae alt familyasÃ„Â±nÃ„Â±n Mentheae oymaÃ„ÂÝÃ„Â±na ait olan *Salvia* L. (adaÃfÃ§ayÃ„Â±) cinsi tÃ„Â±bbi, sÃfÃ½s bitkisi, gÃ„Â±da ve halÃfÃ½sinojenik kullanÃ„Â±mlarÃ„Â± nedeniyle ile iyi bilinmektedir. Bu cinsin *Hemisphace* Benth. seksiyonu TÃfÃ½rkiyeÃ¢Â€Â™de ÃfÃ½ÃfÃ§ tÃfÃ½r ile temsil edilir. Bu gÃfÃ½ncel ÃfÃ§alÃ„Â±Ã Yma, ilgili seksiyona ait morfolojik olarak birbirine benzeyen iki *Salvia* tÃfÃ½rÃfÃ½rÃfÃ½zerine yÃfÃ½rÃfÃ½tÃfÃ½lÃfÃ½mÃfÃ½Ã YtÃfÃ½ Salvia *napifolia* Jacq. ve *S. russellii* Benth. (*S. verticillata* L. hariÃfÃ§). Bu amaÃfÃ§ iÃfÃ§in, sÃfÃ¶z konusu tÃfÃ½rlerin perikap ince yapÃ„Â±sÃ„Â± AÃ„Â±kÃ„Â±k ve geÃfÃ§irimli elektron mikroskopu (TEM) yardÃ„Â±mÃ„Â±yla detaylÃ„Â± olarak araÃ YtÃ„Â±rÃ„Â±lÃfÃ„Â±mÃ„Â±Ã YtÃ„Â±r. Morfometrik karakterler ÃfÃ§oklu karÃ AÃYÃ„Â±laÃ AÃYtÃ„Â±rmalar iÃfÃ§in tek yÃfÃ¶nlÃfÃ½ Varyans Analizi (ANOVA) ile TukeyÃ¢Â€Â™in tam olarak ÃfÃ¶nemli fark (HSD) post-hoc testi kullanÃ„Â±larak analiz edilmiÃ AYtir. Perikarp ÃfÃ¶zelliklerinin taksonomik ÃfÃ¶nemi tartÃ„Â±Ã AÃYÃ„Â±lÃfÃ„Â±Ã AÃYtÃ„Â±r. ÃfÃ§alÃ„Â±Ã AÃYÃ„Â±lan tÃfÃ½rlerin ayrÃ„Â±mÃ„Â±na izin veren en ÃfÃ¶nemli ÃfÃ¶zellikler; perikarp, mesokarp ve sklerenkima bÃfÃ¶gesinin kalÃ„Â±nÃfÃ„Â±Ã, AÃYÃ„Â±dÃ„Â±r. Her iki tÃfÃ½rÃfÃ½n Ã„Â±slatÃ„Â±lÃfÃ„Â±mÃ„Â±Ã AÃY merikarplarÃ„Â±nÃ„Â±n yÃfÃ½zeyinde miksokarpi (mÃfÃ½silaj oluÃ AÃYumu) gÃfÃ¶rÃfÃ½lÃfÃ½mÃfÃ½Ã YtÃfÃ½r. MÃfÃ½silajlÃ„Â± hÃfÃ½creller orta dÃfÃ½zeyde bir reaksiyon gÃfÃ¶stermiÃ AYtir, fakat *S. napifolia*Ã¢Â€Â™daki mÃfÃ½silajlÃ„Â± tabaka biraz daha kalÃ„Â±ndÃ„Â±r (yaklaÃ AÃYÃ„Â±k 0.20-0.34 mm). Bu ÃfÃ§alÃ„Â±Ã AÃYma incelenen tÃfÃ½rlerin perikarp ince yapÃ„Â±sÃ„Â± AÃfÃ½zerine ilk detaylÃ„Â± bulgularÃ„Â± sunmaktadır.

The genus *Salvia* L. (sage), which belongs to the tribe Mentheae of the subfamily Nepetoideae within the family Lamiaceae, is well-known for its medicinal, ornamental, culinary and hallucinogenic uses. The section *Hemisphace* Benth. of this genus is represented in Turkey by three species. The present study is conducted on two morphologically similar *Salvia* species belonging to this section: *Salvia napifolia* Jacq. and *S. russellii* Benth. (excluding *S. verticillata* L.). For this purpose, the pericarp ultrastructure of these species is investigated in detail with the help of light and transmission electron microscopy (TEM). Morphometric characters are analyzed using one-way Analysis of Variance (ANOVA) with TukeyÃ¢Â€Â™s honestly significant difference (HSD) post-hoc test for multiple comparisons. The taxonomic potential of pericarp characteristics is discussed. The most prominent traits are the thickness of the pericarp, mesocarp and sclerenchyma region that permit the separation of the species studied. Myxocarpy (mucilage formation) is recognized on the surface of the wetted mericarps of both species. Mucilaginous cells reveal a moderate reaction but *S. napifolia* is of a somewhat thicker mucilaginous layer, about 0.20-0.34 mm. This study represents the first comprehensive findings on the pericarp ultrastructure of the species examined.

Anahtar Kelimeler

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[Lamiaceae, perikarp ince yapÄ„Å±sÄ„Å±, Salvia, Hemisphace seksiyonu, TEM](#)

[Lamiaceae, pericarp ultrastructure, Salvia, section Hemisphace, TEM, Turkey](#)

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Ayrıştırıcılar

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