

Mediterranean diet of Rhodian Fallow deer (*Dama dama*) during mid-dry and early-wet season

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Background and Questions

Fallow deer is a protected species of deer in Greece.

Living in a Mediterranean environment could be really tough, especially:

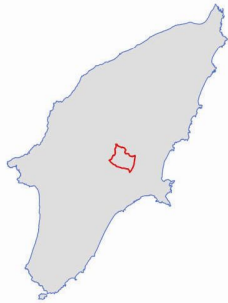
- during the dry season, when food becomes scarce and of low quality,
- during early-wet season, when fresh herbaceous vegetation has not grown up yet.

How does Rhodian Fallow deer respond to these challenges?

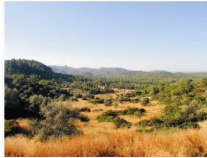


Study area and Methods

Laerma Wildlife Refuge comprises forestland (*Pinus brutia*), shrubland (maquis) and agricultural land (mainly olive trees and a few wheat fields)



Laerma Wildlife Refuge



20 fecal samples were collected each season and microhistological fecal analysis was processed.

A reference collection of plant epidermis of more than 130 plant taxa was created.

Plant epidermis (reference collection)

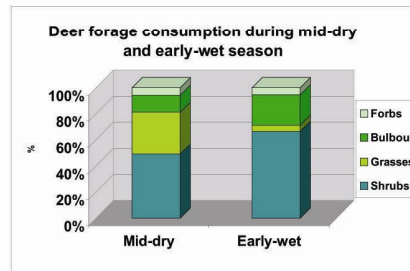
Plant epidermis (feces)

Vegetation sampling took place in August 2005 (mid-dry season) and January 2006 (early-wet season). Modified Daubenmire technique was used along transects in each of the three habitat types.

Results

Forage availability comparison

- Shrubs: remained the same in both seasons.
- Grasses: reduced during the early-wet season.
- Bulbous: increased during the early-wet season.
- Forbs: slightly increased during the early-wet season.



Main food items in each season:

Mid-dry	Early-wet
<i>Olea europaea</i>	<i>Olea europaea</i>
<i>Asphodelus aestivus</i>	<i>Asphodelus aest.</i>
<i>Avena spp</i>	
<i>Triticum aestivum</i>	

Conclusions

- Rhodian Fallow deer is an intermediate feeder.
- Mid-dry season: equal consumption of herbaceous and woody vegetation
- Early-wet season: domination of woody vegetation in deer diet.
- Mid-dry season main food categories: grasses, olive leaves, bulbous plants.
- Early-wet season main food categories: olive leaves and bulbous plants.
- Seasonal food preferences: are related to food availability
- Mixture of natural and agricultural land: necessary for deer food needs.

Acknowledgements

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