Old Groves, New Fruits:
Traditional Mediterranean Olive Groves as Conservation Tools

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Full Paper

Introduction

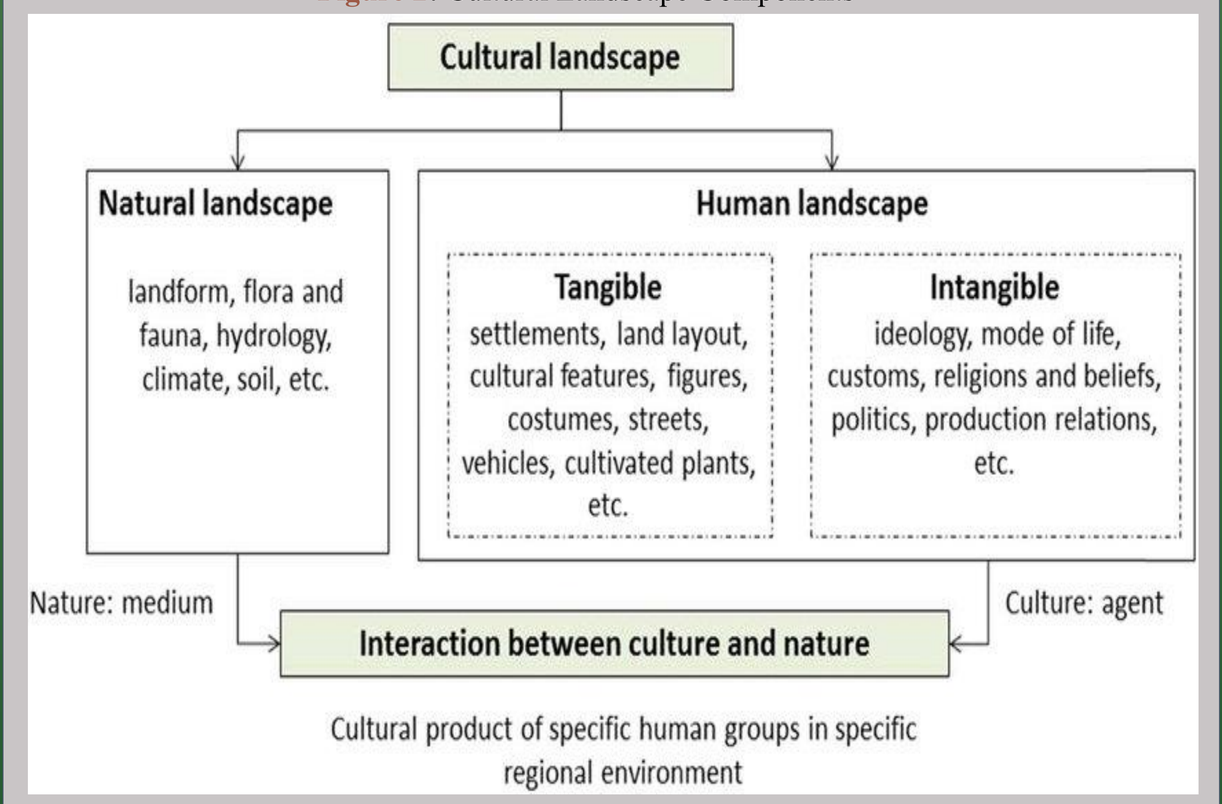
- Agricultural intensification of Mediterranean olive groves is a significant driver of biodiversity loss
- The Mediterranean basin is one of the most biodiverse regions in the world
- Olives have been cultivated sustainably for millennia in the Mediterranean
- Revitalizing traditional olive grove systems can be ecologically regenerative, culturally engaging, and resource sustainable



Figure 1: Traditional Olive Grove, Misilyah, Palestine[1]

Theoretical Background

Figure 2: Cultural Landscape Components[2]



Olive Grove Cultural Landscape

- Traditional olive groves are built around sustainable organic resources and multifunctional land use[1]
- Longevity of olive trees connected generations of people with their environment and food production.
- Olive groves as cultural landscapes date back at least 2,800 years[1]
- Restoring traditional olive groves is tied to restoring local cultural heritage, which can encourage ecotourism

Biodiversity Functions

- Traditional olive groves can resist changes in weather conditions and water shortages
- Livestock and crops can be integrated, providing diverse opportunities for olive groves
- Traditional olive groves can protect endangered species

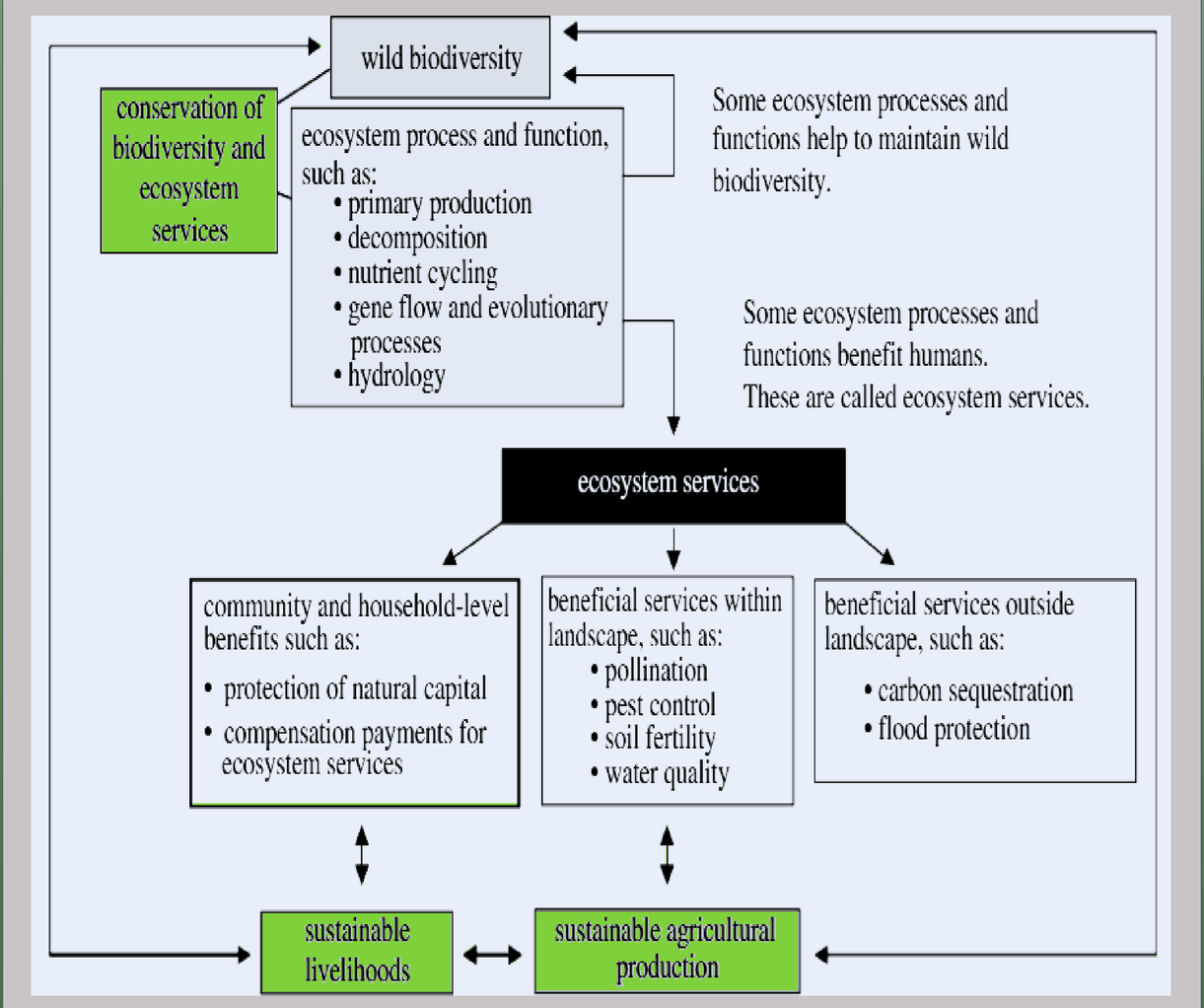


Figure 3: Biodiversity synergizes with conservation, agriculture, and economics[3]

Discussion

Limitations

- Local environmental conditions restrict olive grove capability[4]
- Relies upon preexisting diverse native seed bank
- Prioritizing ecological health over yield results in short term economic loss
- CAP subsidies are ineffective in supporting biodiversity initiatives.
- Supporting biodiversity needs long term investment and careful maintenance[4]
- Ecotourism involves environmentally disruptive land development

Conclusion

- Revitalizing millennia-old traditions can better preserve Mediterranean biodiversity, enriching the landscape with cultural and economic opportunity.
- EU agricultural policy must prioritize supporting local biodiversity initiatives and research.
- The integration of biodiversity within agriculture is paramount for the future of both agriculture and conservation.

References

[1]Alomary, A., Alkowni, R., Jarrar, S., Alsheikh, B., & Calabrese, G. J. (2022) *Jordan Journal of Natural History*, *9*(1), 72–82

[2]Sun, Y., & Ou, Q. (2021) *Open Geosciences*, *13*(1), 1303–1317

[3]Scherr, S. J., & McNeely, J. A. (2007) *Philosophical Transactions of the Royal Society B Biological Sciences*, *363*(1491), 477–494

[4]Cohen, M., Godron, M., Cretin-Pablo, R., & Pujos, R. (2023) *Regional Environmental Change*, *23*(2)

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