

# **Outdoor Experiential Learning in Turkey:**

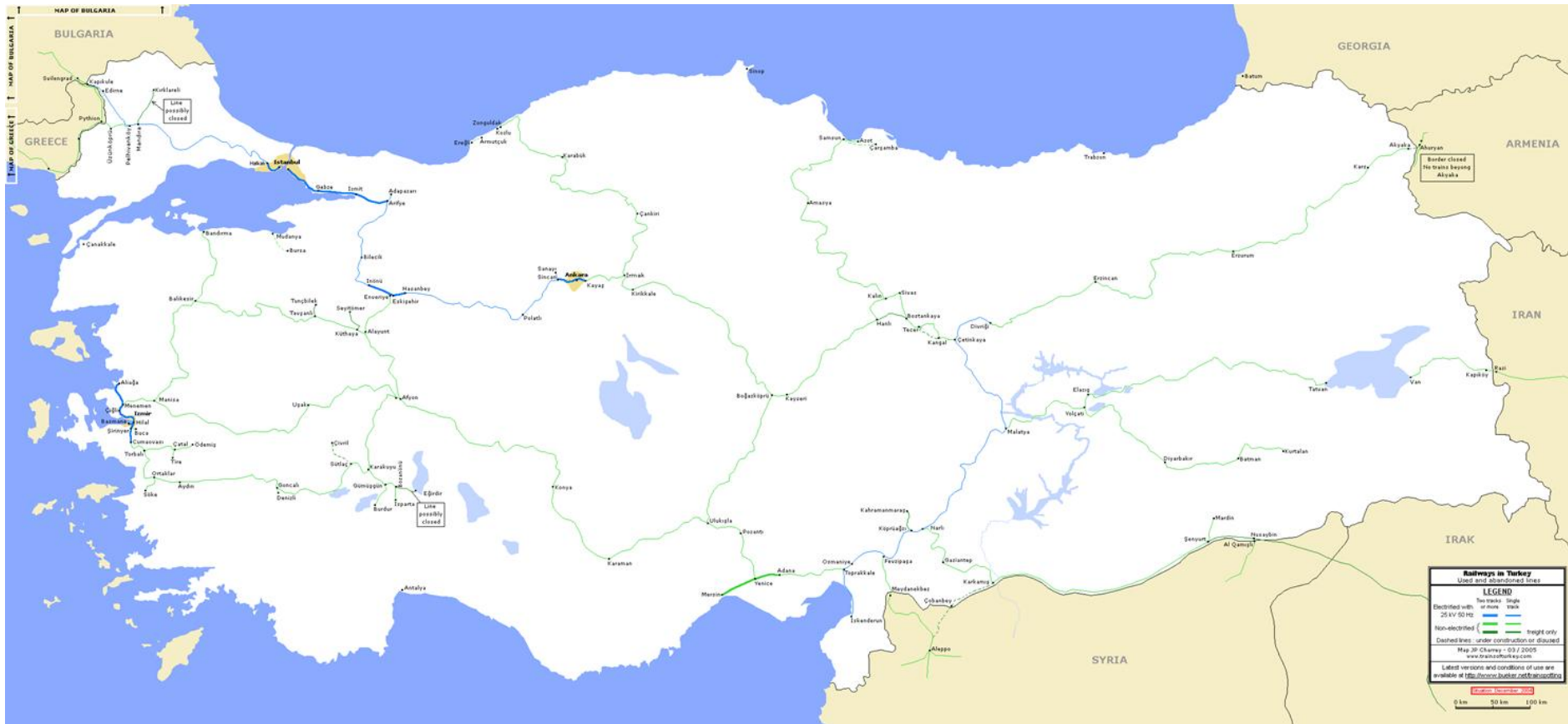
## **An evaluation of an intervention with in-service teachers**

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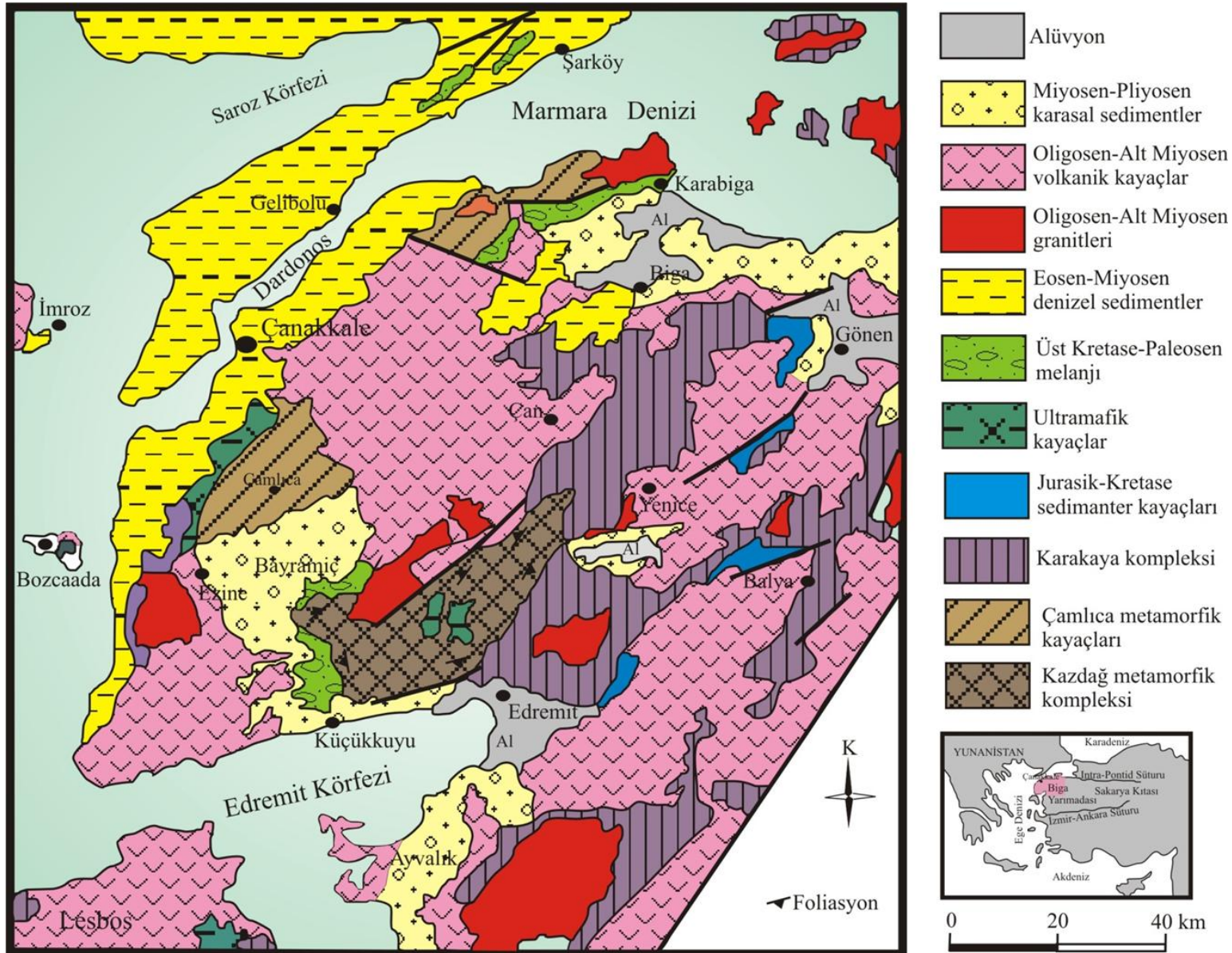
**“Ecology at Canakkale and Suburb, 2011;  
Turkey”**

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# Where is Canakkale?



# Canakkale's geology





## Some ecosystem examples from Canakkale



# The goal of the project

- The goals of the intervention were to help the in-service teachers gain:
  - knowledge,
  - awareness,
  - favourable attitudes, and
  - an overall holistic perspective, about the natural environment.

# The intervention

- This research examines the effectiveness of the programme for **three groups** of in-service teachers:
  - The experimental (24 teachers) group was subjected to an intervention that **included outdoor EE activities** as well as lectures.
  - There were 2 control groups.
    - One of the control groups (23 teachers) was subjected to **indoor EE activities**, as well as lectures.
    - The last group (19 teachers) was given **no EE activities** at all, but were given lectures only.

# The content of the intervention

| Ecological sub-items  | Activities  |
|---|---|
| Physical environment  | Astrophysics, Evolution of the World<br>Relationship between climate-environment<br>Geology of Canakkale and suburbs  |
| <p>Ecology of<br/>species and species community</p> <p>Species ecology<br/>Population ecology<br/>Community ecology</p> | Endemic flora of Canakkale and suburbs<br>Forest ecosystem<br>Vertebrata of Canakkale and suburbs<br>Marine ecosystem<br>Marine algae<br>Biological control<br>Stream ecology |
| Ecosystem ecology   | Production of energy<br>Water pollution and effective use of water  |
| Human ecology   | Compost<br>Ecotourism<br>Organic cultivation<br>Electromagnetic Areas which are formed by humans<br>Green buildings<br>Ecologic footprints<br>Deep ecology                    |



# Astrophysics



Lecture



Outdoor activity



# Relationship between climate-environment



# Geology of the Canakkale and suburb





# Endemic flora of Canakkale and suburb and Forest ecosystem



# Vertebrata of Canakkale and suburb





# Marine ecosystem and Marine algae



Collecting marine sediment



Snorkelling



# Stream ecology



# Stream ecology





# Compost: Organic fertilizer





# Control group



# Control group



# Evaluation

- A mixed method approach was used to collect data in the evaluation.
- Quantitative data tools included pre and post-intervention **environmental knowledge tests**, and **awareness** and **attitudinal surveys**.
- The qualitative data tools included participant **reflective writing**, taken after each activity and again six months after completion of the intervention and **non-participant observation** using field notes and **video recording**.
- Quantitative data was analysed using **statistical tests** and qualitative data using **content analysis**.



# Evaluation





# Findings

- Early findings indicate the control group which was subjected to indoor EE activities showed increasing knowledge, awareness and favourable attitudes.
- On the other hand the experimental, and the control group with no EE activities, showed increasing knowledge and awareness only, but there was no change in attitudes.
- All the participants are followed up in January (2012) with further evaluative tests.

A low-angle photograph of a dense forest. The image shows numerous tall, slender tree trunks reaching upwards, with a thick canopy of bright green leaves at the top. Sunlight filters through the leaves, creating a soft, hazy atmosphere. The perspective makes the trees appear to converge towards the top of the frame.

Questions?