

The Balkan Environment Center and the Balkan Wildland Fire Observatory

Ioannis Gitas – George Zalidis





The Balkan Environment Center (BEC)

Environmental Monitoring

Environmental quality, threats, pressures and impacts
(e.g. erosion, floods,...+ fires)

Monitoring
Indicators

Operational - Real time monitoring

Decision
Support

Early Warning

Risk
Assessment

The Balkan Wildland Fire Observatory

Preparatory actions

- Prepare Cooperation Agreement between the UNISDR Regional Fire Monitoring Center (RFMC) and the '*Balkan Wildland Fire Observatory*'
- Set Unit objectives
- Personnel selection
- Search for funding opportunities

Existing facilities and expertise

- Available facilities
- Related expertise

Unit Objectives

- GENERAL: to promote 'Forest Fires - RS/GIS related' research and training in the Balkan region
- To develop 'Forest Fires - RS/GIS' web-based services* with updated information in relation to fire danger estimation, burned area mapping and post-fire recovery monitoring
- To promote Public Participation GIS (PPGIS) as a tool to enhance communication between the different interested parties (forest service, fire service, etc.)

*Web site to be developed on the existing BEC e-platform

Unit Objectives (2)

- To provide expert advice and knowledge transfer
- To assist 'Capacity building' in the region with:
 - the organisation of (and/or participation in) national and international training courses and long-life training programs
 - the organisation (and/or support) of seminars, workshops, and conferences on the application of Remote Sensing and GIS in forest fire management
- To promote networking and collaboration between interested parties
- To represent the region in the GOFC/GOLD Fire IT

Personnel

Permanent Staff

- I. Gitas (Scientific Coordinator)
- A. Dimitrakopoulos (Advisor Forest Fires)
- G. Mallinis (Advisor Remote Sensing/GIS)

Interim-Contract staff (Non-Permanent)

- I. Mitsopoulos (Senior Researcher and International collaboration)
- H. Minakou (Researcher, Administration, International collaboration)

Post Graduate students

- Young researcher
- Young researcher

Funding opportunities

Project proposals submitted for funding:

- National Observatory of Forest Fires (Hellenic Ministry of Environment Energy and Climate Change – Green Fund) Proposed Budget: 210K
- AFIS - Adriatic cross-border wildfire information system (IPA Crossborder Cooperation Programme) Proposed Budget: 600K

To be submitted soon

- Territorial Cooperation Programme GR-BL



The National Observatory of Forest Fires

Objectives:

- Development, Mapping and Evaluation of an Empirical Forest Fire Danger Index for Northern Greece
- Forest Fuel Type Mapping at National Level
- Operational Burned Area Mapping at National Level
- Knowledge transfer and dissemination to the surrounding Balkan countries



AFIS - Adriatic cross-border wildFire Information System

Aim:

- The aim of the project is to improve and strengthen institutional capabilities related to the protection, prevention and monitoring of wildfires through the application of GIS and Remote Sensing

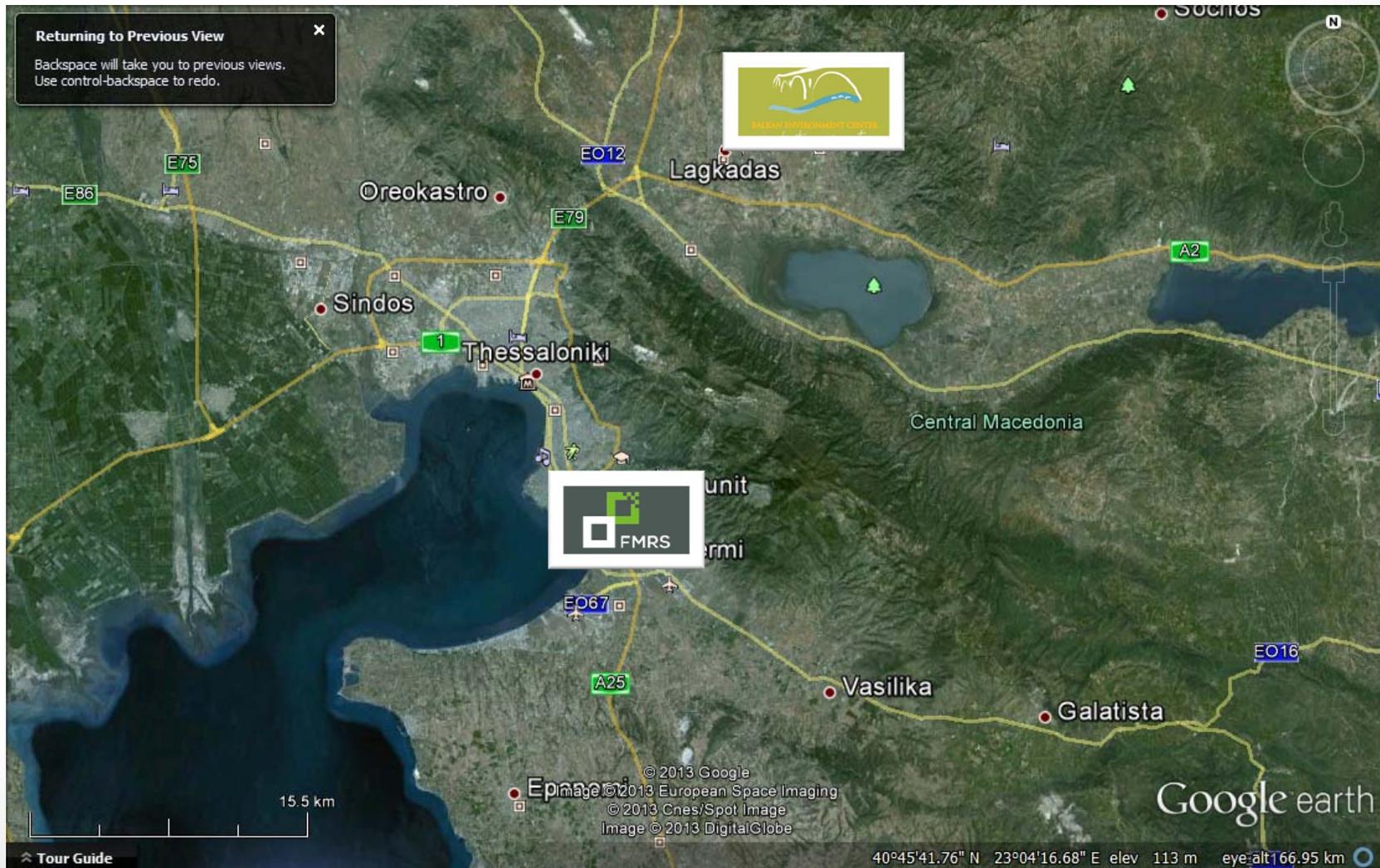
Specific objectives include:

- To develop a common (regional) fire risk index by using EO data and GIS
- To develop and test a common (regional) post fire monitoring assessment methods
- To develop and test a common (regional) system for fire damage assessment considering economic losses, social impact and the impact on the environment
- Also to promote institutional cooperation in the Adriatic region

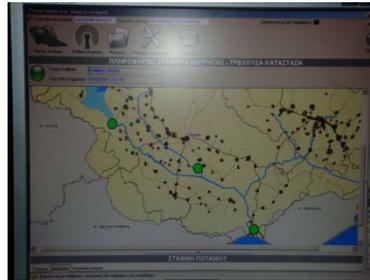
Participants

- Albania, Bosnia and Herzegovina, Croatia, Greece, Italy, Serbia, Slovenia

Facilities



Facilities



Relevant Expertise



**Laboratory of Forest
Management & Remote
Sensing**

**School of Forestry & Natural
Environment
ARISTOTLE UNIVERSITY OF
THESSALONIKI (AUTH)**

**Tel: +30 2310 992699, Fax:
+30 2310 992731
E-mail: igitas@for.auth.gr**

Research Team



The Laboratory currently
employs 17 people:

3 - Permanent Academic Staff

1 - Permanent Researcher

1 - Secretary

4 - Research Associates and

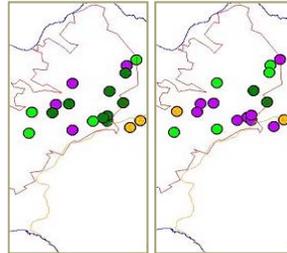
8 - Post-graduate students (MSc,
PhD)

Activities

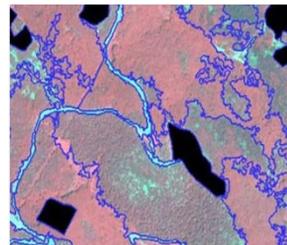
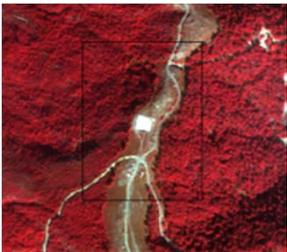
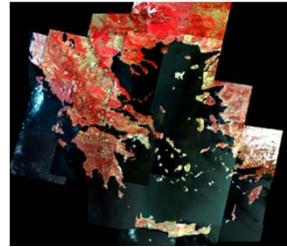
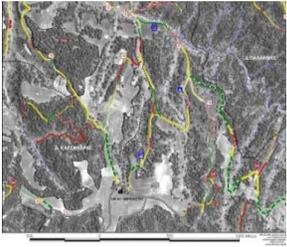


- Research
 - Remote Sensing, GIS, Forest Fires, Land cover/use mapping, Forest mapping, Forest Management, Soil erosion, Landscape Ecology
- Education
 - graduate and postgraduate courses
- Dissemination of knowledge to the society
 - operational applications, lectures, seminars, national and international conferences, networks

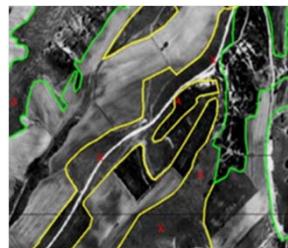
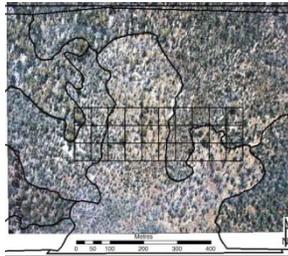
Research priorities



- Applications in forest fire research
- Forest management
- LULUCF - Kyoto protocol (Forest species mapping, biomass estimation)
- Land cover/use mapping
- Landscape ecology
- Soil erosion
- Environmental degradation assessment
- Ecosystem dynamics

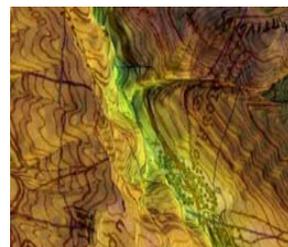
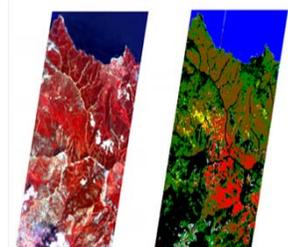


Educational activities



The Unit offers the following undergraduate and postgraduate courses :

- Forest Aerial Photography
- Environmental Remote Sensing
- Geographic Information Systems
- Forest Management, Applied Forest Management, Compilation of Management Plans
- Forest Land Mapping

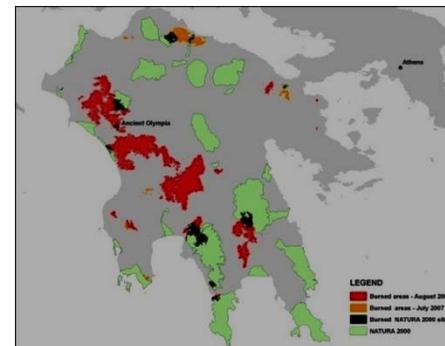
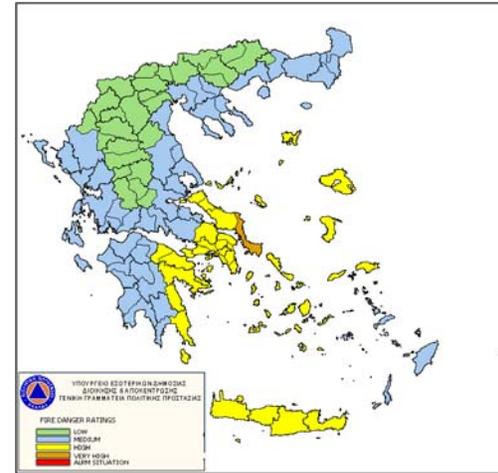
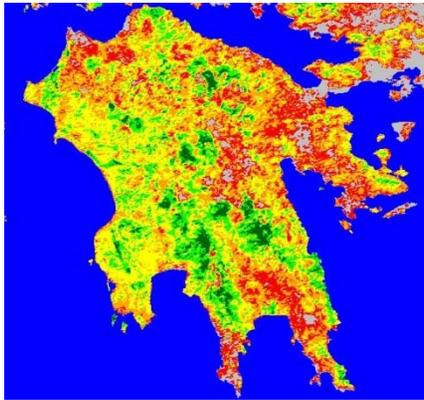


Also, it offers lectures and seminars in cooperation with public and private organizations, institutes, universities and companies.

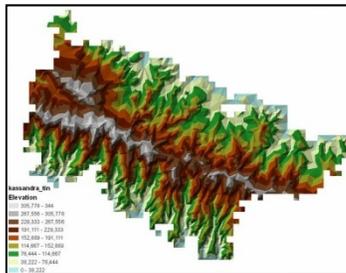
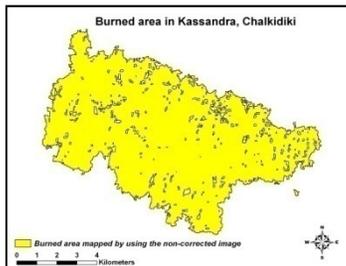
Collaboration with International organisations and Greek end-users



Involvement in operational applications of RS



Open source GIS software development



BAS 2

File Help

Fire perimeter
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Land Cover
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Category Field: CODE_00

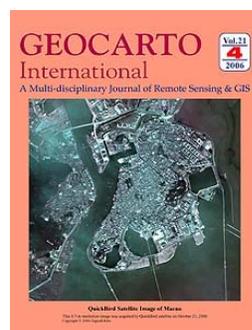
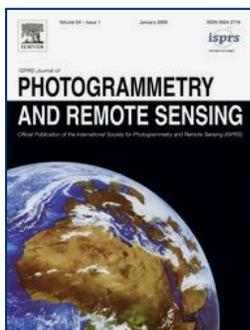
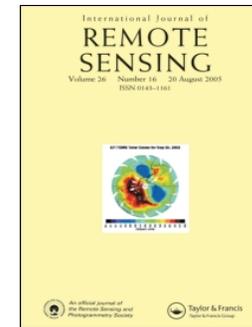
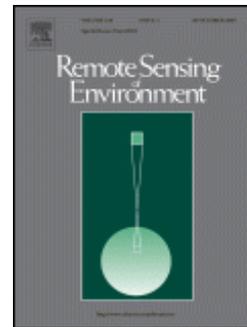
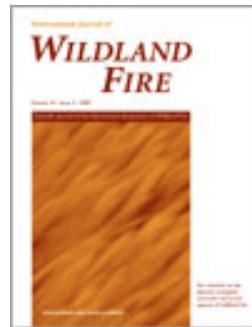
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open source
Burned Area Statistics

Publications in impact factor journals

Members of the Laboratory have published the results of the research conducted in the Laboratory in many international peer-review journals:



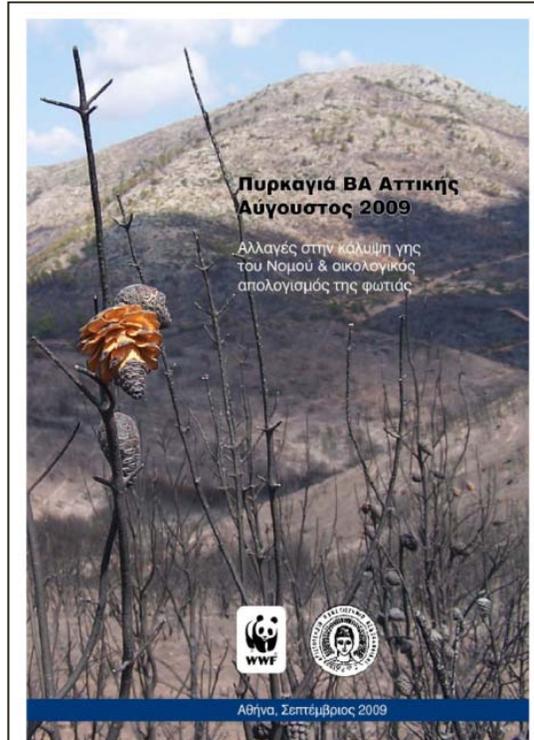
Practical value of our work



Οικολογικός απολογισμός
των καταστροφικών πυρκαγιών
του Αυγούστου 2007
στην Πελοπόννησο




Αθήνα, Σεπτέμβριος 2007



**Πυρκαγιά ΒΑ Αττικής
Αύγουστος 2009**

Αλλαγές στην κάλυψη γης
του Νομού & οικολογικός
απολογισμός της φωτιάς




Αθήνα, Σεπτέμβριος 2009

2-OCT-2007 11:30 FROM GRWF_GEN.GRWF@MEL.HELLAS.GOV.GR TO KALAMITOP@P... P.01/01

**ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
ΠΕΡΙΦΕΡΕΙΑ ΠΕΛΟΠΟΝΝΗΣΟΥ
ΓΕΝΙΚΗ ΔΙΕΥΘΥΝΣΗ ΠΕΡΙΦΕΡΕΙΑΣ**

Τρίπολη, 1.10.2007
Α.Π. ΟΙΚ.16188

Τοχ. Δίση : Τέρμο Ερυθρού Σταυρού
Τοχ. Κώδικας : 221 00 – Τρίπολη
Πληροφορίες : Γρ. Γεν. Δ/σης
Τηλέφωνο : 2713 601010
TELEFAX : 2713 601019
e-mail : basiges@peloponnisos.gov.gr

**ΠΡΟΣ: ΑΠΘ
ΣΧΟΛΗ ΓΕΩΤΕΧΝΙΚΩΝ ΣΠΟΥΔΩΝ
Τμήμα Δασολογίας και Φυσ. Περιττός
Εργαστήριο Δασικής Διαχειριστικής
και Τηλεπισκόπησης**

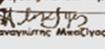
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Συνάδελφε, προσηγορική σημάδευσή μας, που είχαμε από το εργαστήριό σας σχετικά με τη δυνατότητα διάθεσης στις Υπηρεσίες μας, που αποτελούνται με τη χρήση γαλιών, με καρπογραφικά προϊόντα που παράγει το εργαστήριό σας από ελαιοκομικές εκτάσεις δορυφόρων, σας γνωρίζουμε ότι μας είναι πολύ απαραίτητες και θα μας προσφίρσετε εξαιρετικές υπηρεσίες.

Συγκεκριμένα τα Δασοκεία είναι υποχρεωμένα να εφάρξουν τις καμένες δασικές εκτάσεις αναδαστικές, μόνο σε κέρνο τριών μηνών από την παρακάτω Εποχή οι εκτάσεις είναι τεράστιες, είναι αδύνατον στο κέρνο αυτό να καρπογραφηθούν οι καμένες εκτάσεις χωρίς υποστήριξη από ορθοφυτοκομικές προεργασίες από δορυφορικές εκτάσεις λήψεις μετά τις πυρκαγιές. Μετά την εκδήλωση των τεράστιων περασμένων στη νότια Ελλάδα, ως Περιφέρεια Πελοποννήσου, που είχαμε και το μεγαλύτερο πρόβλημα, επικοινωνήσαμε τόσο με τα Δασοκεία της Περιφέρειας Πελοποννήσου όσο και μετά της Ησίας, Ακείας και Ευβοίας προκειμένου να εξασφαλίσουμε ορθοφυτοκομίες για να προσδιορίσουμε τις καμένες δασικές εκτάσεις να να τις εφάρξουμε αναδαστικές.

Μαθαίνοντας ότι ήδη έχετε συνάξει υπηρεσιακές ορθοφυτοκομίες με τις καμένες εκτάσεις παρακαλούμε πολύ αν είναι δυνατόν να μας τους διαθέσετε, αναλαμβάνοντας χωρίς την διακοπή τους στις δασικές υπηρεσίες της νότιας Ελλάδος με τη διαβεβαίωση ότι το εργαστήριό σας υποστηρίζει τα μέγιστα τόσο τη δημόσια διαίτηση όσο και την κοινωνία των περιόχωντων περασμένων.

Από τη διάθεση αυτών των καρπών θα ωφεληθούν άμεσα οι υπηρεσίες διαβιόντων δασών των Νομών Αρκαδίας, Λακωνίας, Μεσσηνίας, Ησίας, Ακείας και Ευβοίας.

 Γενικός Διευθυντής
Πέτρος Πελοποννήσου

Αναγνώστης Μελίγιος

TOTAL P. 01

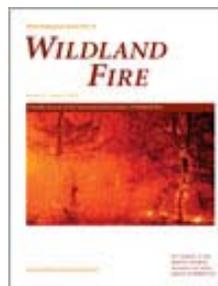
A selection of granted research projects



Other activities

- The unit is a member of EARSeL - chairing the EARSeL Special Interest Group on Forest Fires (EARSeL – FFSIG)
- Members of the group :
 - are editors / guest editors in international journals and conference proceedings
 - are members of the scientific or organising committee of different national and international events
 - participate in national (Civil protection, Ministry of Environment, Energy and Climate Change) as well as international committees (FAO FRA RSS 2010)

Journals



eJournals



- Conf. Proceedings



Thank you very much for your attention