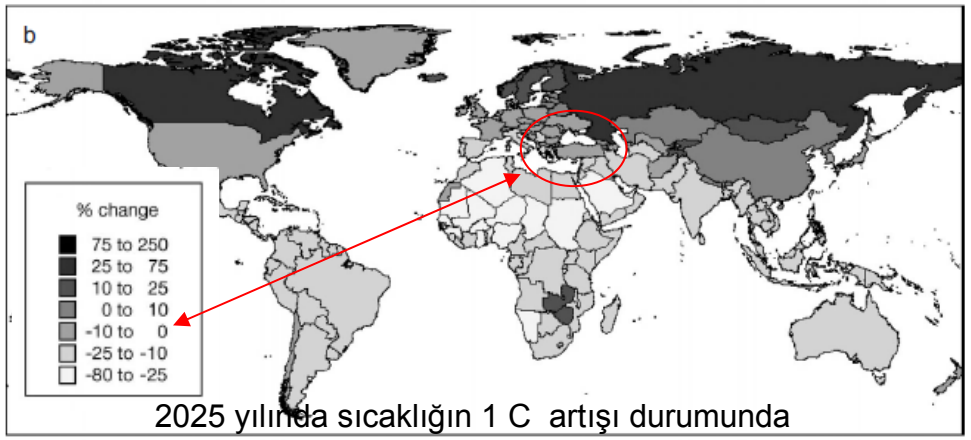
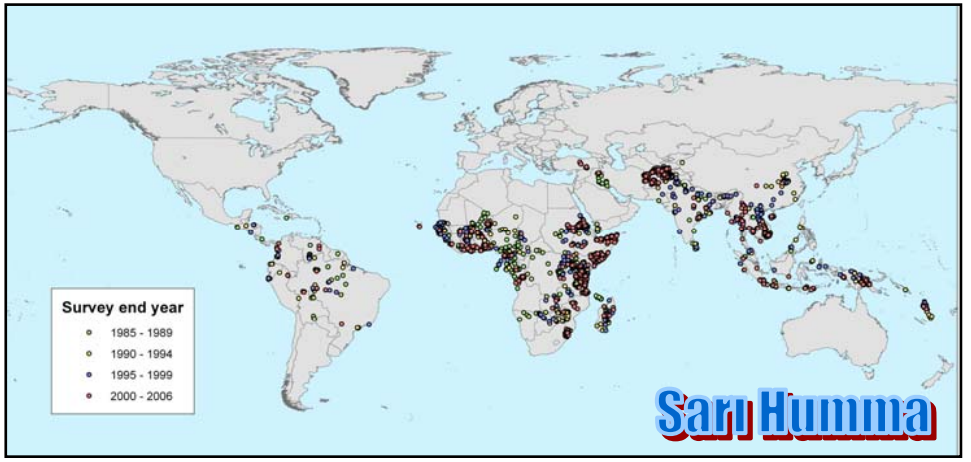
İklim değişimi ve EKOLOJİK AÇIDAN sürdürülebilir ormancılık

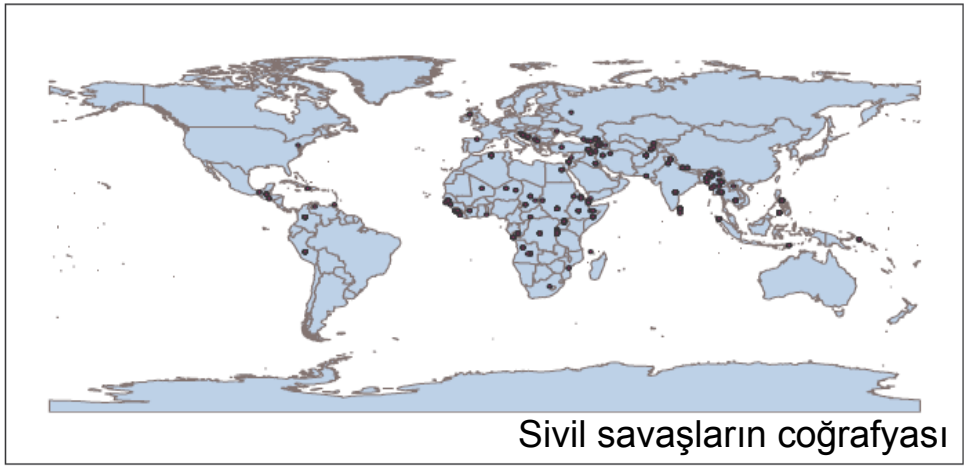
Dr. Kürşad ÖZKAN
SDU, ORMAN FAK.

Küresel iklim değişimi



2025 yılında sıcaklığın 1 C artışı durumunda





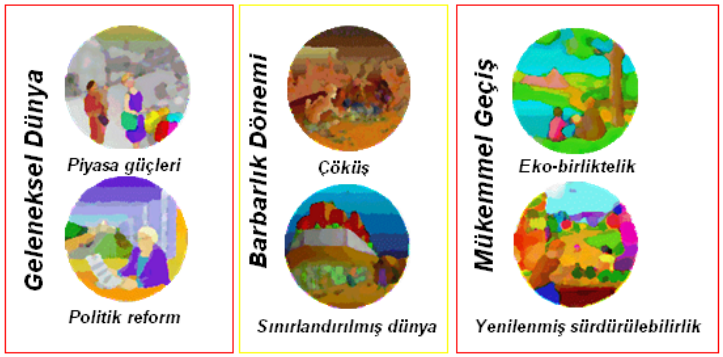
Sivil savaşların coğrafyası

Emilsiyon senoryaları

Millenium Ecosystem Senaryoları

	Reaktif	Proaktif
Küresel	Küresel Uyum	Temiz Teknoloji
Bölgesel	Güç Egemenliği	Uyarlanabilir Mozaik

•Küresel Senaryo grubu senaryoları



GEO-3 senaryoları

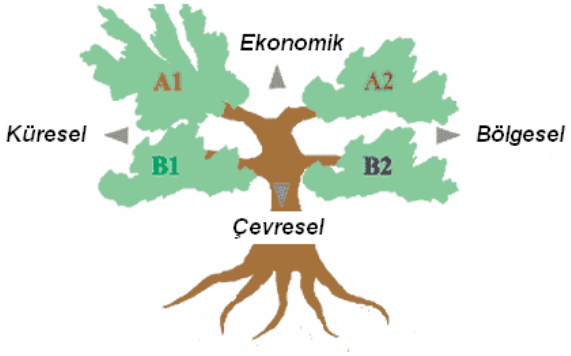
Piyasa önceliği senaryosu

Güvenlik önceliği senaryosu

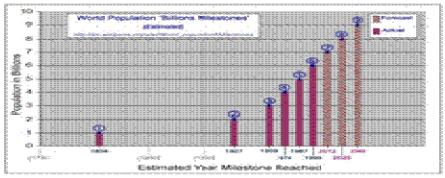
Politik öncelik senaryosu

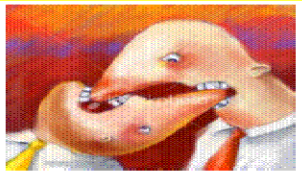
Sürdürülebilirlik önceliği senaryosu

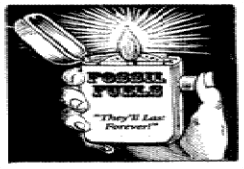
•SRES- IPCC Senaryoları

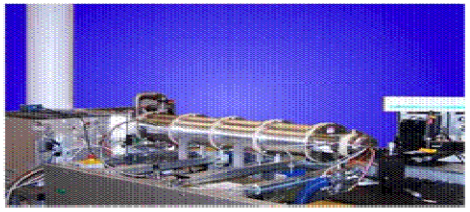


SRES IPCC aktörleri



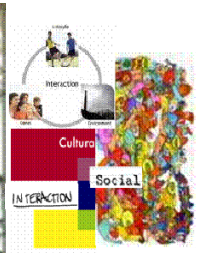


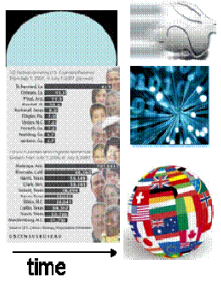


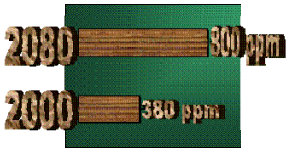


The emission scenarios (SRES-IPPC)

A1

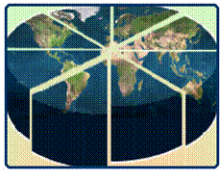


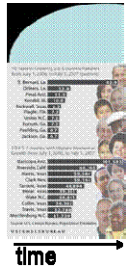




3.0 C°(1,8 C°-4,2 C°)

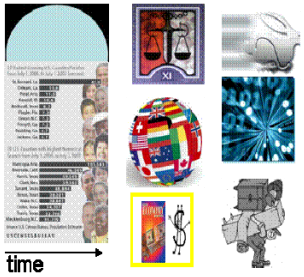
A2

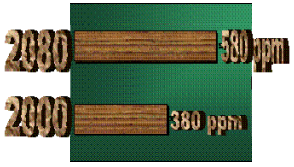




2.8 C°(1,6 C°-4,1 C°)

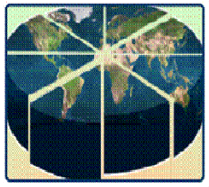
B1

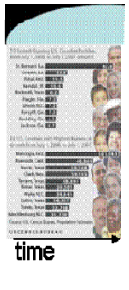




1.8 C°(1,1 C°-2,9 C°)

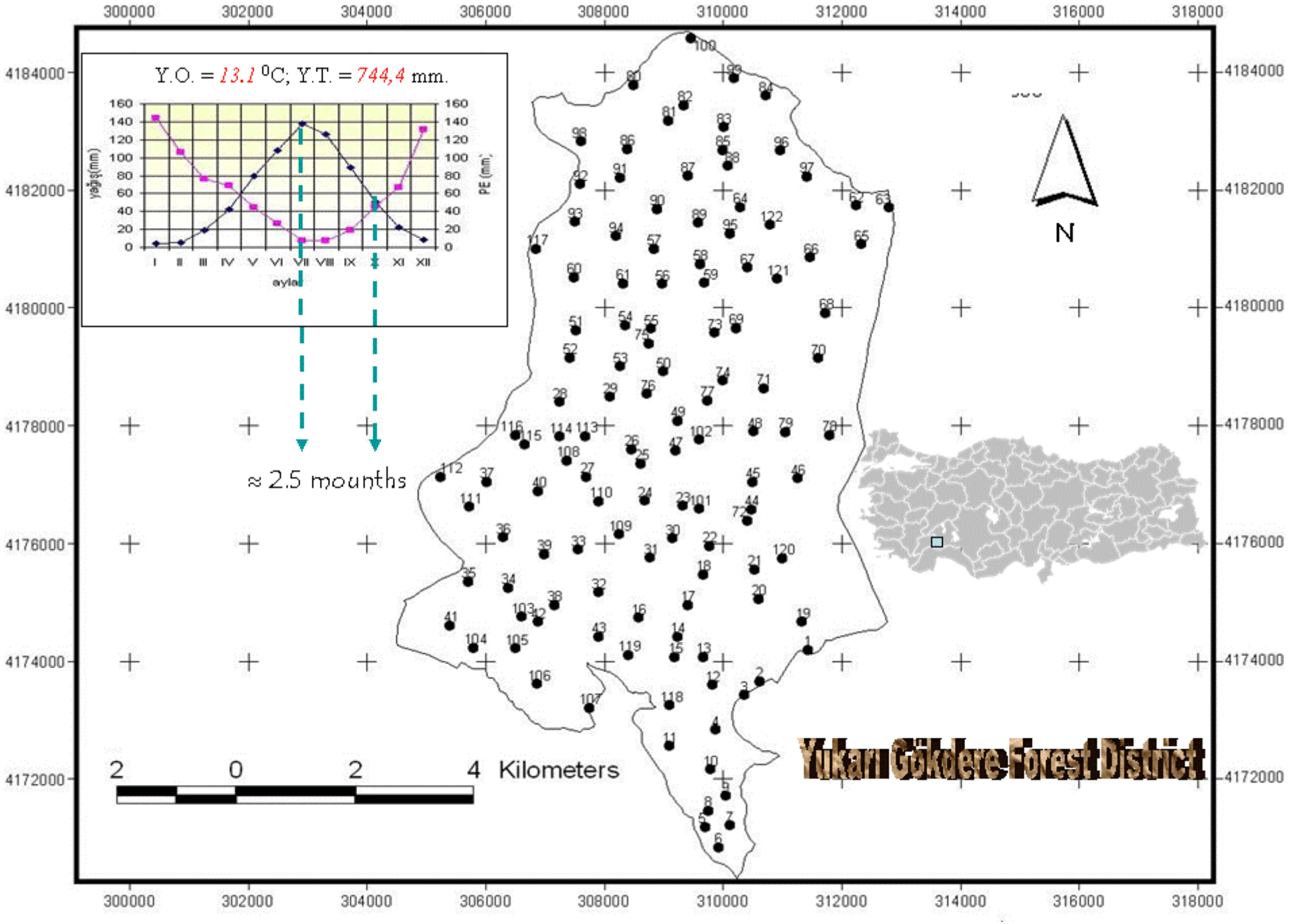
B2

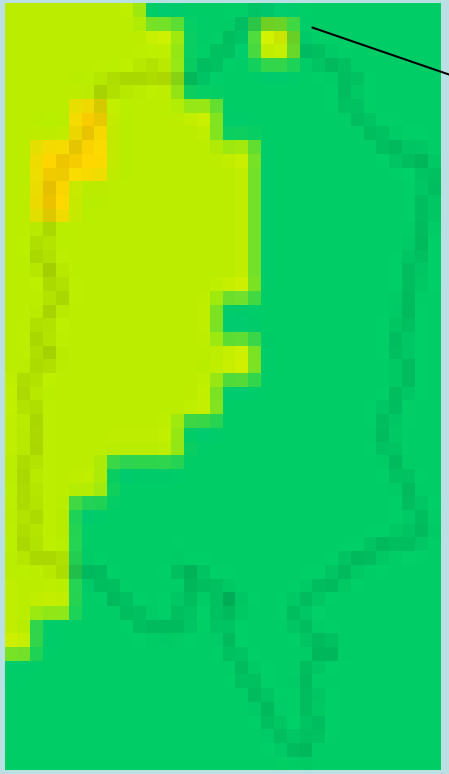




2.1 C°(1,4 C°-3,8 C°)

İklim değişimi altında bitki türlerinin dağılımı nasıl kestirilecek? ***(Kasnak meşesi örmeği)***


Y.O. = 13.1 °C; Y.T. = 744,4 mm.
yağış(mm)
PE (mm)
aylar
I II III IV V VI VII VIII IX X XI XII
≈ 2.5 mounths
N
2 0 2 4 Kilometers
Yukarı Gökdere Forest District
300000 302000 304000 306000 308000 310000 312000 314000 316000 318000
4184000 4182000 4180000 4178000 4176000 4174000 4172000



Aralık ayı min_sıcaklık haritası (günümüz)

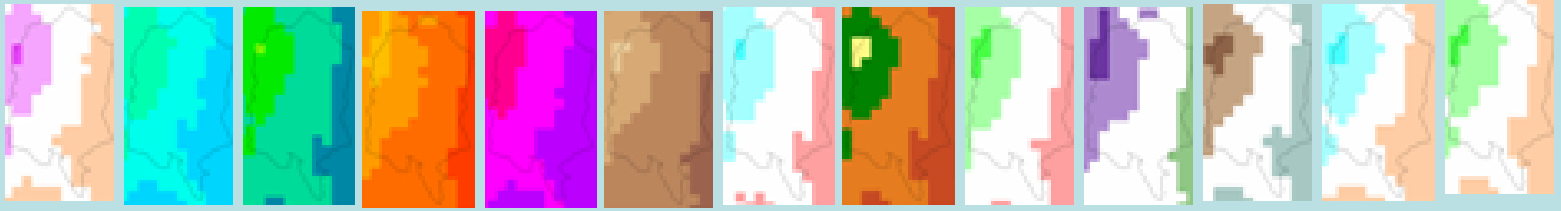
800 m

800 m

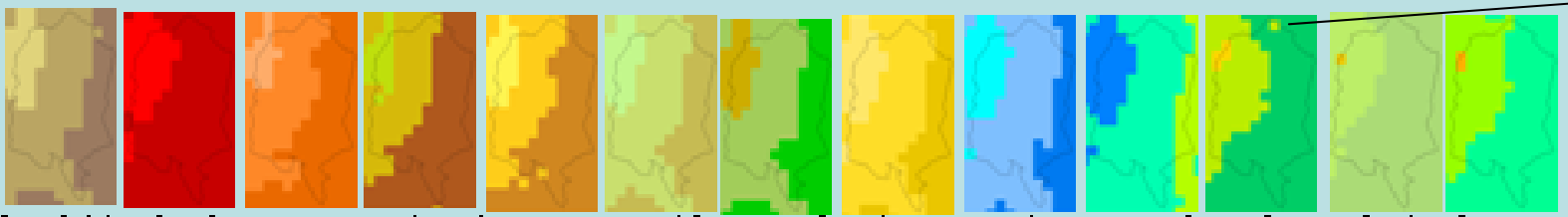
Piksel boyutu

Datum & Models

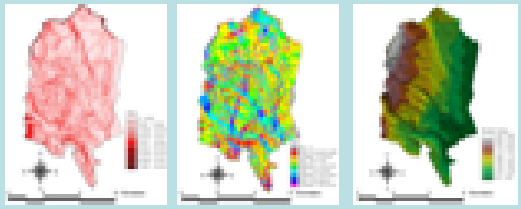
From the left to the right: Precipitation (annual, january, february, march, april, may, june, july, agust, september, october, november, december



From the left to the right: max_temperature (annual average, january, february, march, april, may, june, july, agust, september, october, november, december

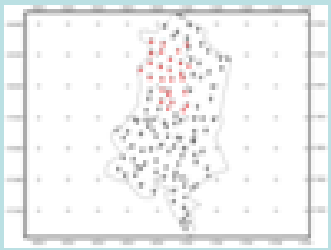


From the left to the right: min_temperature (annual average, january, february, march, april, may, june, july, agust, september, october, november, december

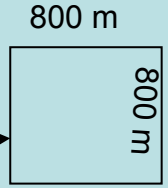


From the left to the right: slope, aspect, altitude maps

VS.

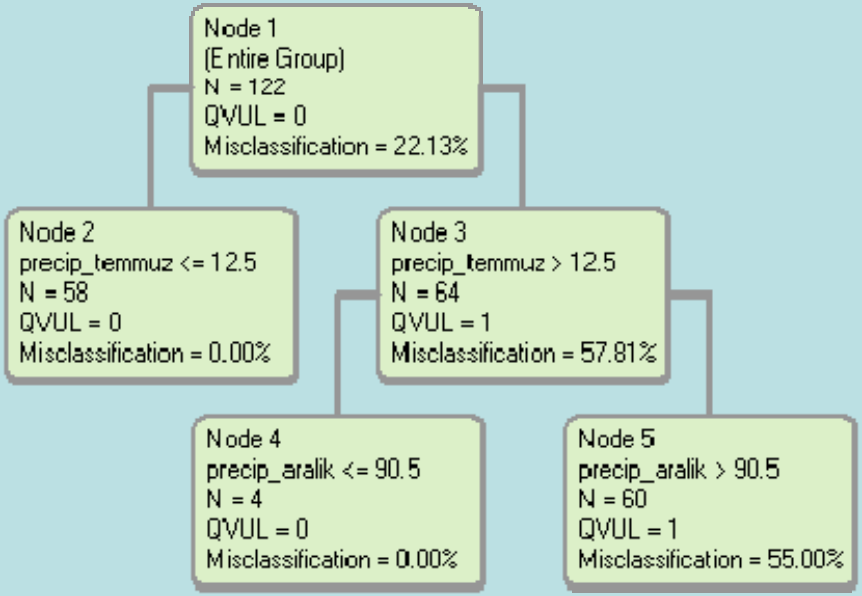


- Presence of Kermes Oak
- absence of Kermes Oak



Piksel boyutu

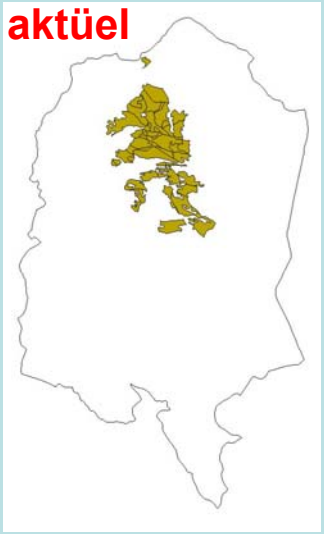
KASNAK MEŞESİNİN POTANSİYEL YAYILIŞ HARİTASI

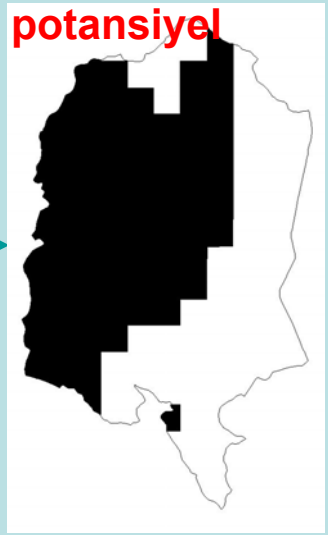


$\chi 2 = 35.83$ ($p<0.000$)

Count

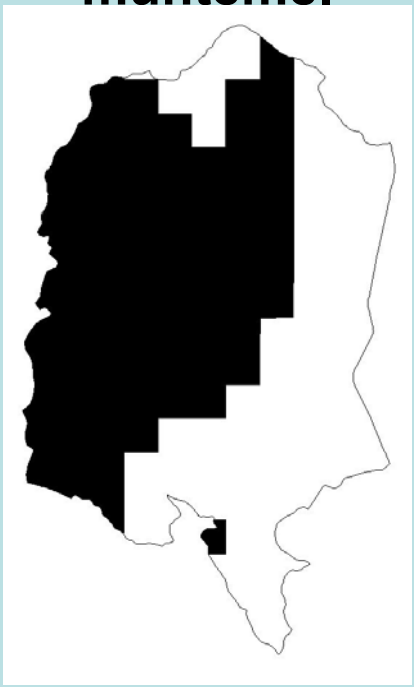
		regclasstwocatag		Total
		0	1	
QVUL	0	62	33	95
	1	0	27	27
Total		62	60	122



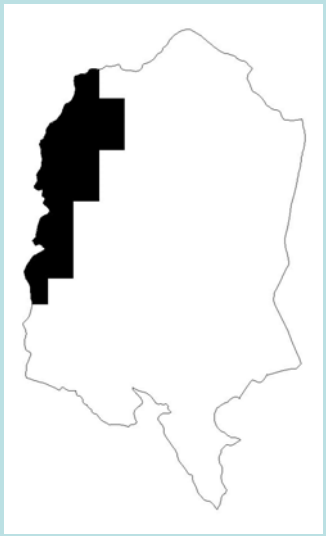


Kasnak meşesinin senaryolara göre gelecekteki muhtemel

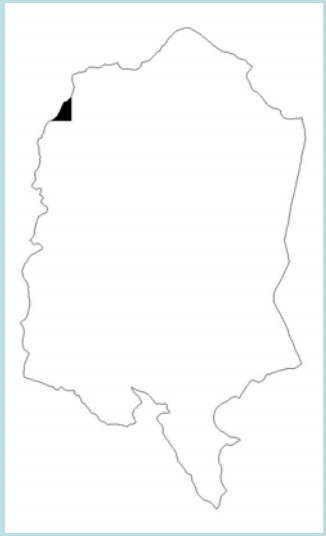
günümüz



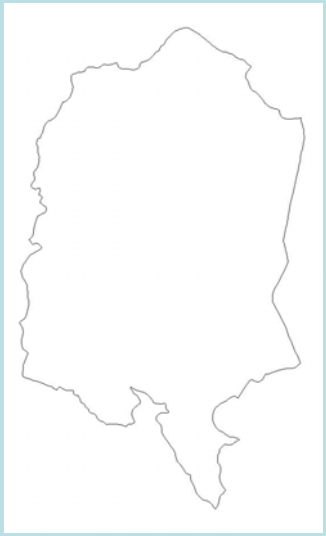
a2-2020



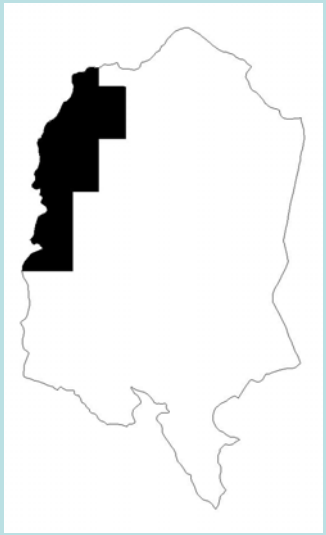
a2-2050



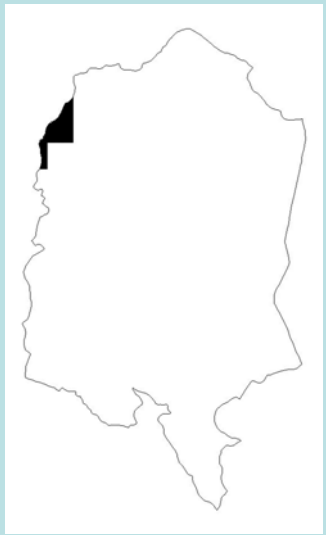
a2-2080



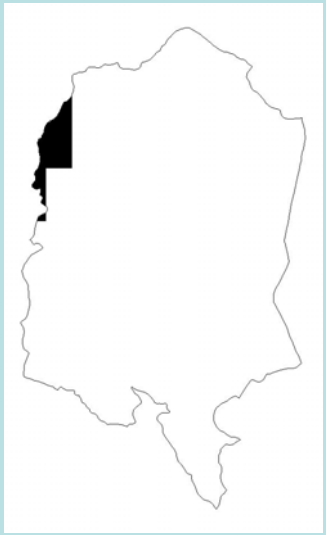
b2-2020



b2-2050



b2-2080



HATCM3 (Hadley merkezinin modelleri)

Günümüz **Gelecek (A1)**

Cerastium latifolium

Ranunculus alpestris

UNIL | Université de Lausanne
Département d'écologie et évolution
bâtiment Biophore bureau 4302
CH-1015 Lausanne
Faculté des géosciences et de l'environnement

mri mountain research initiative

Intermediate report

EUROMONT Workshop

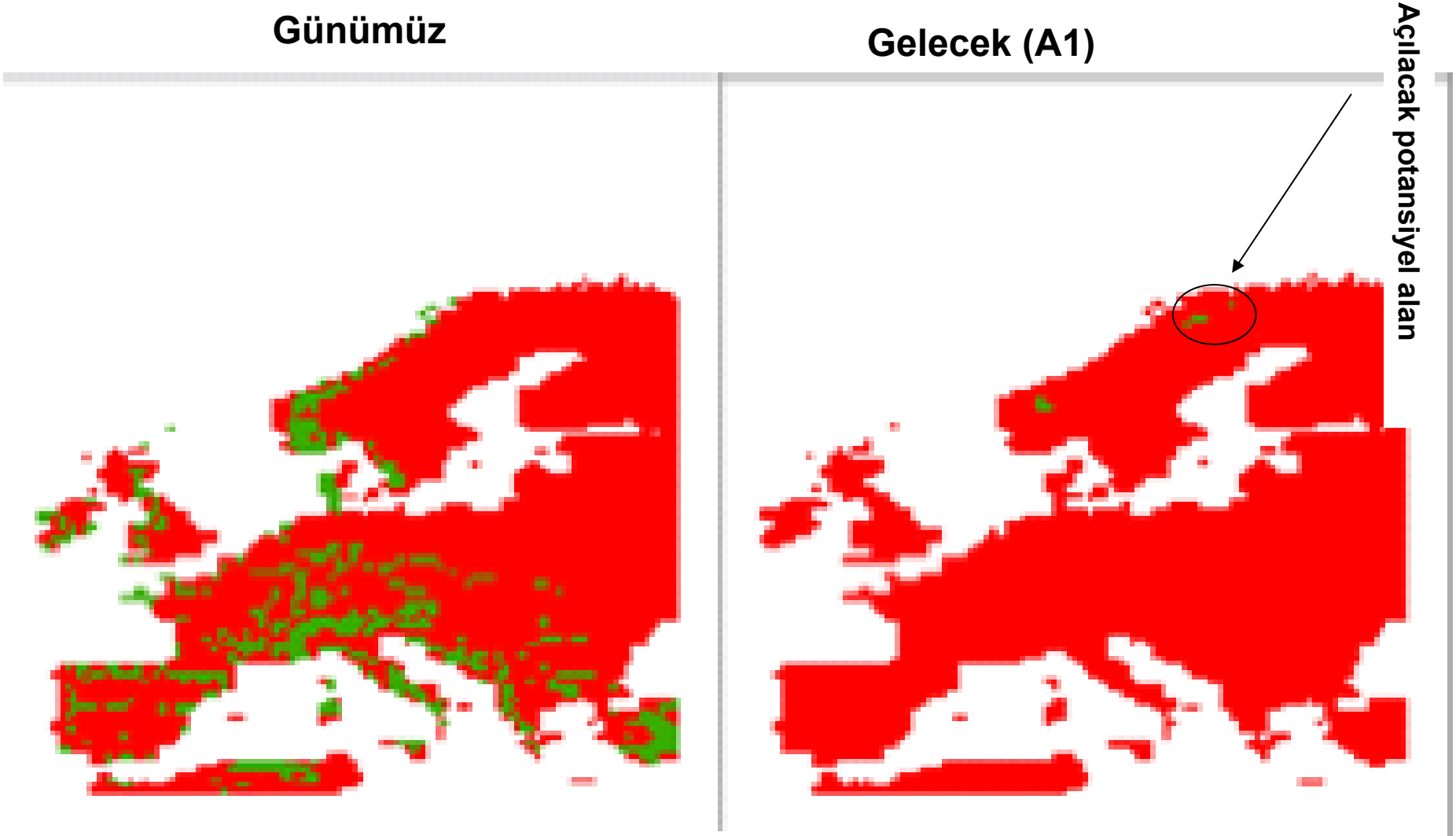
Climate threat to alpine plant diversity in Europe

A European workshop held at
the University of Lausanne
April 10-13, 2006
Lausanne, Switzerland

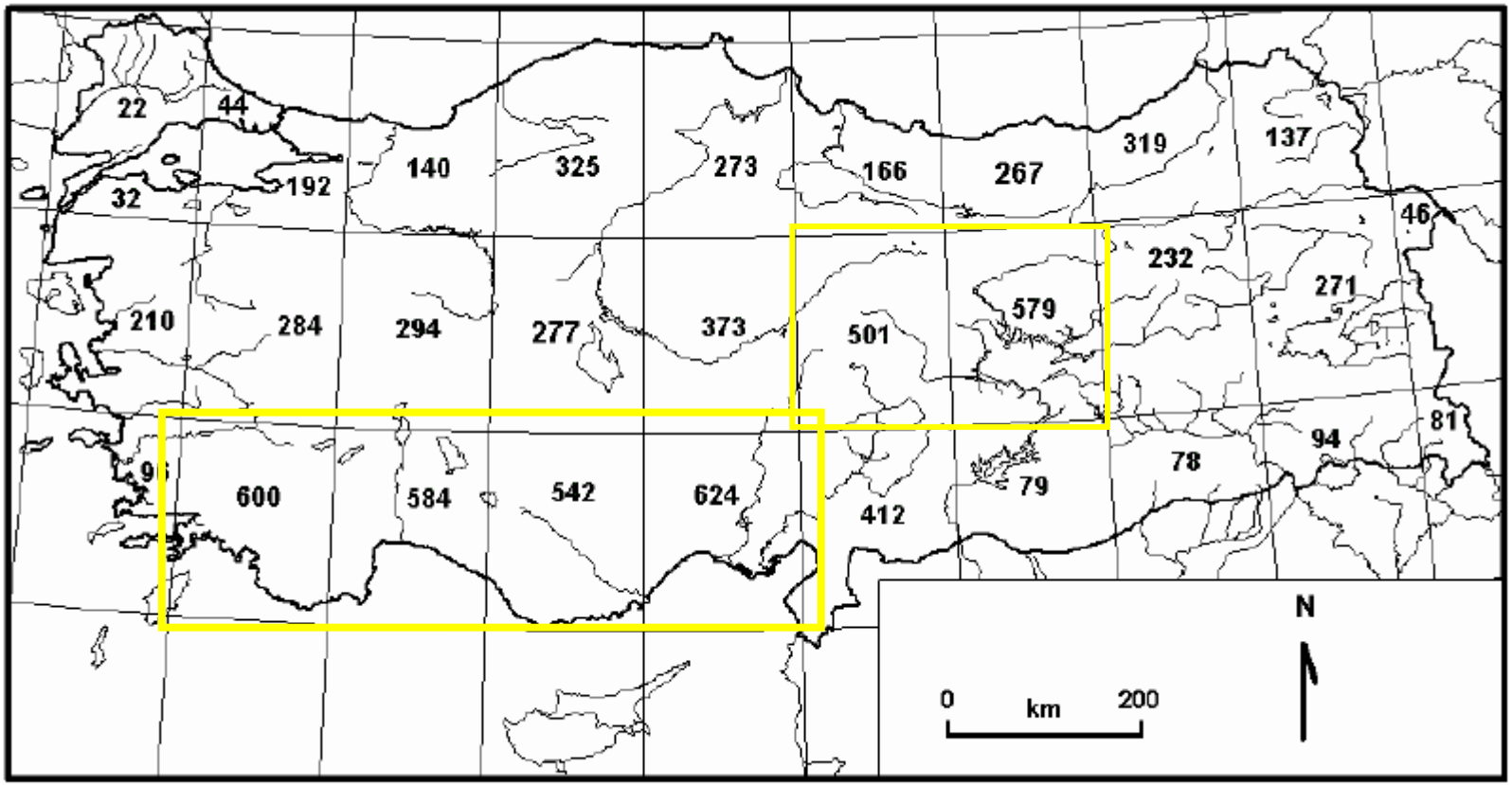
Prof. Antoine Guisan

With the collaboration of
Robin Engler & Christophe Randin

University of Lausanne
Department of Ecology & Evolution
The Biophore
CH-1015 Lausanne
Switzerland



Ranunculus alpestris



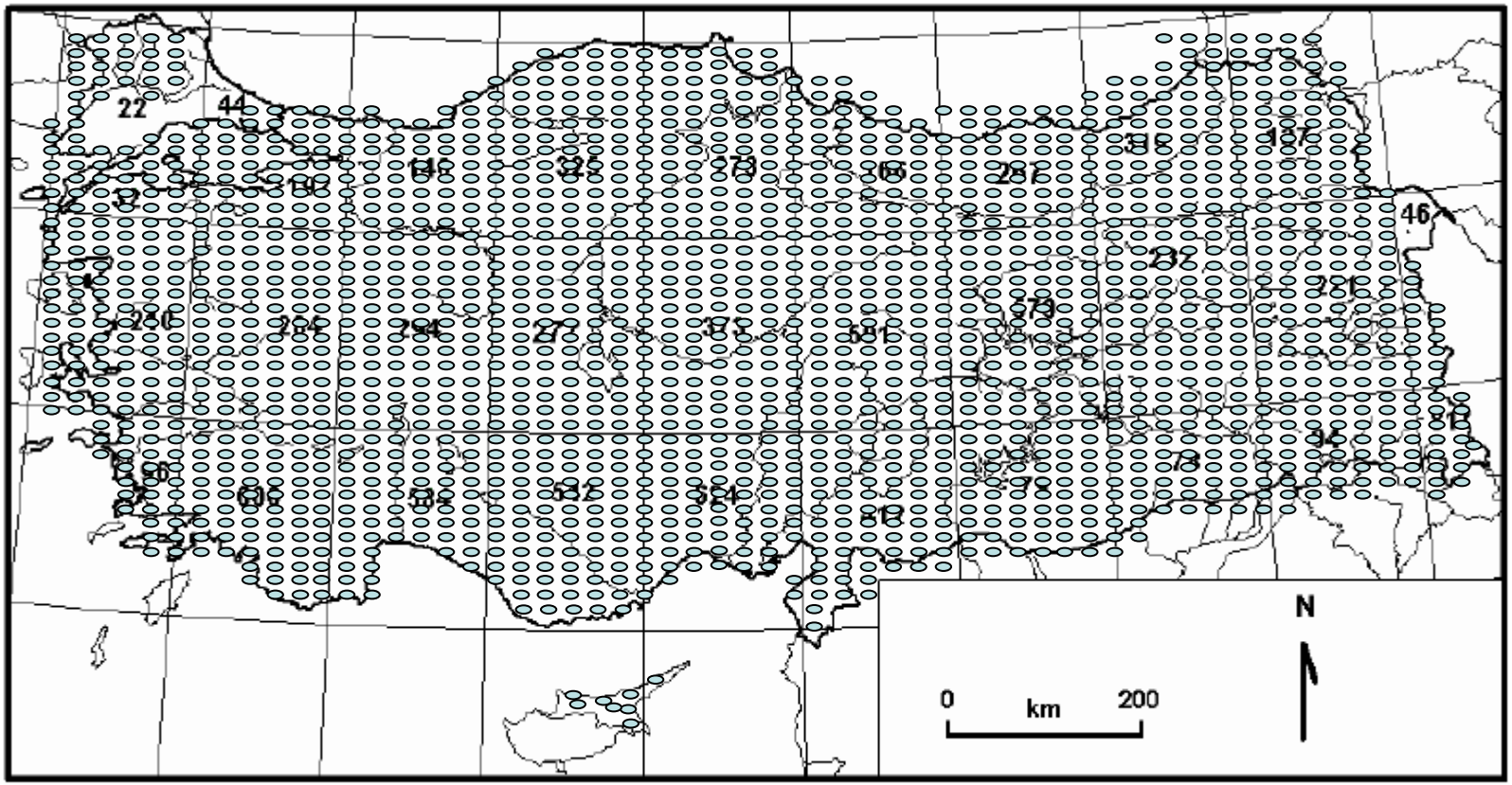
Şekil 19- Türkiye endemik bitki sayılarının dağılışı (Kutluk ve Aytuğ, 2001).

İstanbul Üniversitesi Edebiyat Fakültesi Coğrafya Bölümü
COĞRAFYA DERGİSİ
Sayı 13, Sayfa 27-55, İstanbul, 2005
Basılı Nüsha ISSN No: 1302-7212 Elektronik Nüsha ISSN No: 1305-2128

ÇEŞİTLİLİK VE ENDEMİZM AÇISINDAN TÜRKİYE'NİN BİTKİ ÖRTÜSÜ

Diversity and Endemism in Turkey's Vegetation

Meral AVCI[a]

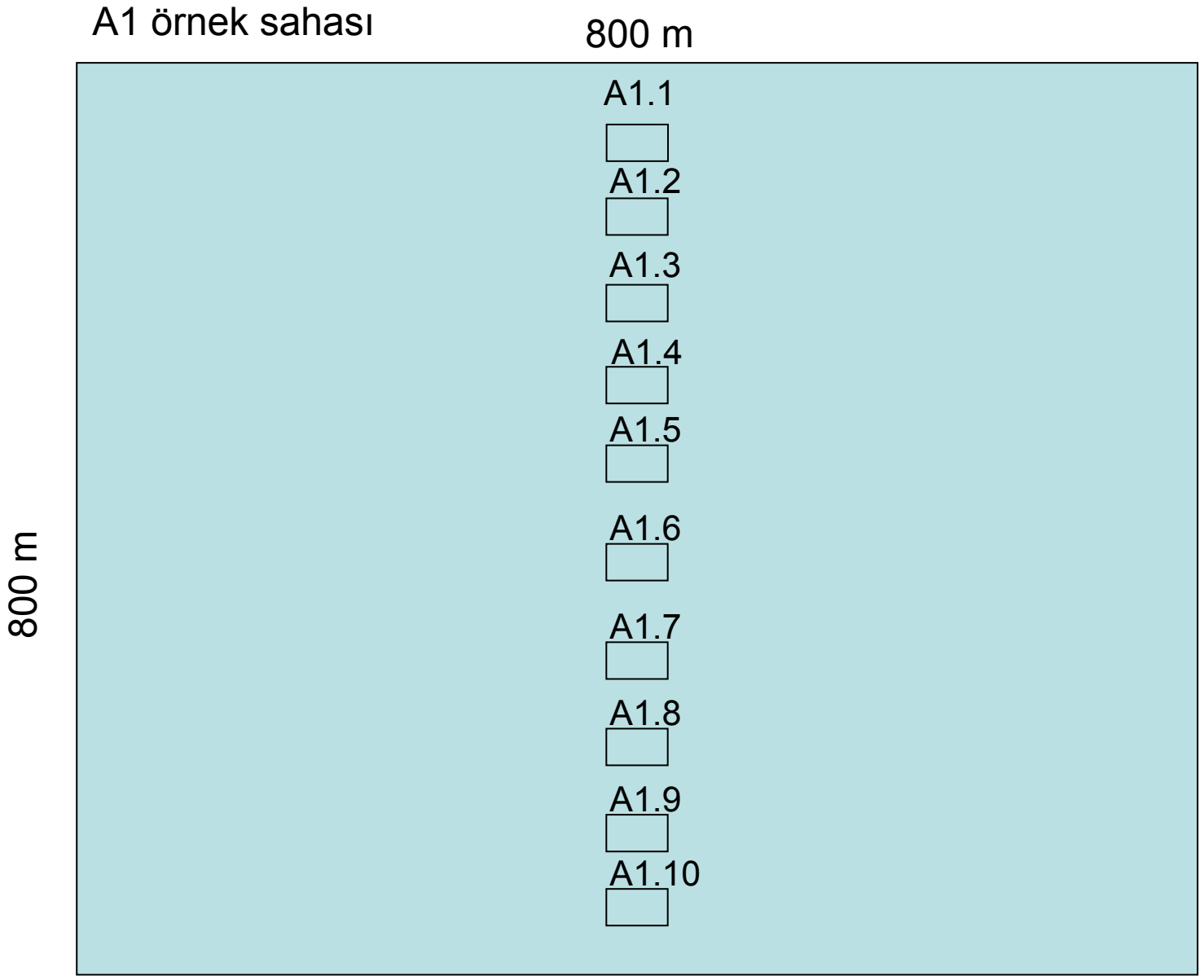


Şekil 19- Türkiye endemik bitki sayılarının dağılışı (Kutluk ve Aytuğ, 2001).

- Örnek sahalar yerleştirilecek (5000 civarı örnek saha)

  50 tane botanikçi, her biri 100 er örnek saha,

  Maliyet: örnek saha başına 200 ytl, + 100 CPS + paketler + program eğitimi


A1 örnek sahası
800 m
800 m
A1.1
A1.2
A1.3
A1.4
A1.5
A1.6
A1.7
A1.8
A1.9
A1.10
Bitki türlerinin var-yok verileri (yapısal çeşitlilik?)

Minimal Government Thinkers, Inc.
www.minimalgovernment.net

Global Cooling Reality vs. Global Warming Politics [1]

Bienvenido "Nonoy" Oplas, Jr. [2]
April 22, 2009

Introduction

It is Earth Day today, a day where people around the world are reminded
that the Earth is "in danger" – from climate change, from global warming
much carbon dioxide (CO2) and greenhouse gases (GHGs), from rising se
so on. Today, the climate change hysteria is further fanned.

On the other hand, this week, if not this whole month, a climate anomaly
cloudy almost everyday, rain showers at least twice a week, tail-end of a
until middle of the month, then occurrence of low pressure area along inte
convergence zone (ITCZ) in many parts of the country with threats of flas
some provinces. This week for instance, April 20 to 26, 2009, Manila (Ai
temperature range on average (including forecast) is 25° C to 30° C maxi
(Source: http://www.wunderground.com/global/stations/98429.html).

But this month is one of two hottest months of the year. We are supposed
of sunlight and cloudless sky. The average maximum temperature for Apr
years was 33° C (Source:
http://www.weatherbase.com/weather/weather.php3?s=92489&refer=&u
and (b) last 11 years, 1998-2008, was 34.8° C (Source: PAGASA/CAB/C
thermometer station at Quezon City). This means that the Philippines, or
Manila at least, is experiencing around 3° C cooling in April this year com
average April temperature over the past 2 decades!

[1] Presented at the joint meeting, Rotary Club of Makati McKinley and Rotary Club of
Bonifacio, RI District 3830. Duets Bistro, AIM Conference Center, Makati City, Philip
[2] President, Minimal Government Thinkers, Inc., and Past President, Rotary Club of
Bonifacio

Global Cooling is Here
Evidence for Predicting Global Cooling for the Next Three Decades

By Prof. Don J. Easterbrook

Global Research, November 2, 2008
Department of Geology, Western Washington

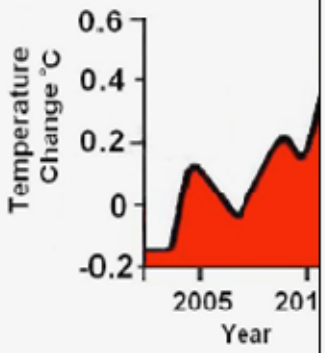
Global Research Editor's note

The following article represents an alternative
dominant Global Warming Consensus.

Global Research does not necessarily endor
value the Consensus on Global Warming. O
global climate change.

INTRODUCTION

Despite no global warming in 10 years and
Climatic Change (IPCC) and computer model
the Earth is in store for catastrophic warm
warming of 1° F per decade and 5-6° C (10-
ramifications for human life, natural habitat
predicated on the *assumption* that global w
continue to rise rapidly.



WAITING FOR GLOBAL COOLING

by

Robert Fawcett and David Jones

National Climate Centre
Australian Bureau of Meteorology
Melbourne, Australia
April 2008

Corresponding author:

Dr David Jones
National Climate Centre
Australian Bureau of Meteorology
GPO Box 1289, Melbourne, Vic 3001

Tel: 03 9669 4085
Email: d.jones@bom.gov.au

Summary

There is very little justification for asserting that global warming has gone away over the past ten years, not least because the linear trend in globally-averaged annual mean temperatures (the standard yardstick) over the period 1998-2007 remains upward. While 1998 was the world's warmest year in the surface-based instrumental record up to that point in time, 2005 was equally warm and in some data sets surpassed 1998. A substantial contribution to the record warmth of 1998 came from the very strong El Niño of 1997/98 and, when the annual data are adjusted for this short-term effect (to take out El Niño's warming influence), the warming trend is even more obvious.

Because of the year-to-year variations in globally-averaged annual mean temperatures, about ten years are required for an underlying trend to emerge from the "noise" of those year-to-year fluctuations. Hence, the fact that 2006 and 2007 were cooler than 2005, is nowhere near enough data to clearly establish a cooling trend.

Global warming stopped in 1998. Global temperatures have remained static since then, in spite of increasing concentrations of greenhouse gasses in the atmosphere. Global temperatures have cooled since 1998. Because 2006 and 2007 were cooler than 2005, a global cooling trend has established itself.

All these statements, and variations on them, have been confidently asserted in the international and Australian media in the past year or so, but the data do not support them.

İklim değişimine Ağlasun örneği****

Sürdürülebilirlik, ekolojik açıdan

- Türlerin dağılımı

- Biyolojik çeşitlilik
- Ekosistemlerin Verimliliği
- Gelecekteki potansiyel yangın risk alanları

- Ölçek ne olacak? Yöre ölçeği? Bölge ölçeği?Türkiye? Bütün dünya?

Sürdürülebilirlik, ekolojik açıdan

- Türlerin günümüz ve gelecekteki yayılış, verimlilik alanlarının tespiti ve haritalanması;
- Biyolojik çeşitlilik bakımından günümüz ve gelecekteki muhtemel önemli potansiyel alanlar,
- Hangi ülkenin doğal türü bizim alanlarımızda gelecekte doğal olarak yayılabilecek?
- Bunlar sürdürülebilir ormancılık açısından önemli midir?.
- Sözleşmeler önemlimidir? (Biyolojik çrşitlilik, Kyoto protokolü..)

Sürdürülebilirlik, ekolojik açıdan

- Yaban hayvanları için günümüz (ve gelecekte?) habitat uygunluk haritalaması mümkün mü?

Sürdürülebilirlik, ekolojik açıdan

- Sürdürülebilirlik için;

- Orman ekosistemini oluşturan canlılara ait potansiyel anlamda Mekansal ve zamansal dağılım veri temini

Sürdürülebilirlik, ekolojik açıdan

- Senaryo yazılımları;
- Uzmanlar (toplum bilimcileri, ekonomistler, doğa bilimleri uzmanları, uluslar arası ilişki uzmanları…vb.).
- Alternatif senaryoların üretimi,
- Planlama

teşekkürler