

APPENDIX 5 TOP 50 INVADERS THOUGHT LIKELY TO INCREASE IN A WARMER CLIMATE, IN RELATION TO HABITAT

Habitats (columns) are grouped and labelled with initial letters as follows.

Tillage Horticulture Garden Waste Transport
 Dune and shingle Saltmarsh
 Coast rock Walls Inland rock
 Lawn Unmanaged grass Permanent grass Track Bank
 Stream Wetland Bog Heath Shrub Hedge Wood

LF	Family	Species	THGWT	DS	CWI	LUPTB	SWBHSW
Th	Portul	Claytonia perfoliata	.....	..	...	.....	.....HW
Th	Portul	Claytonia sibirica	.....	..	...	.....B	.....HW
Th	Balsam	Impatiens glandulifera	.....	..	...	.....	SW.....
Th	Balsam	Impatiens parviflora	.....	..	...	.....	.....W
Bien	Umbell	Heracleum mantegazzianu	...W.	..	...	.....	SW.....
Bien	Umbell	Smyrniolum olusatrum	.....	..	C..	.....B	.....HW
G	Ranunc	Eranthis hyemalis	.....	..	...	.....	.....W
G	Liliac	Allium triquetrum	.HG..	..	...	.....B	.....HW
G	Liliac	Hyacinthoides hispanica	..G..	..	...	.....	.....HW
G	Iridac	Crococsmia x crocosmiifl	..G..	..	...	.....B	S.....
Hv	Polygo	Fallopia japonica	..GWT	..	...	.....B	S.....
Hv	Polygo	Fallopia sachalinensis	..GWT	..	...	.....B	S.....
Hv	Crassu	Sedum album	.....	..	C.I	.....	.....
Hv	Crassu	Sedum rupestre	.....	..	C.I	.....	.....
H	Legumi	Lathyrus latifolius	.....	..	C..	.....	.....HW
Hv	Umbell	Aegopodium podagraria	.....	..	...	.....B	S...HW
Hv	Convol	Calystegia silvatica	.....	..	...	.....	.....H.
Hv	Scroph	Cymbalaria muralis	.....	..	.WI	.....	.....
Hv	Campan	Campanula rapunculoides	.....	..	...	.....	.....HW
H	Valeri	Centranthus ruber	.....	..	CWI	.....	.....
Hv	Compos	Doronicum pardalianches	.....	..	...	.....	.....HW
Hv	Compos	Petasites fragrans	..GWT	..	...	.....B	.....
H	Juncac	Juncus tenuis	.....	..	...	.....T.	...H...
Ch	Crucif	Erysimum cheiri	.....	..	CWI	.....	.....
Ch	Apocyn	Vinca major	.....	..	...	.....B	.....HW
Ch	Apocyn	Vinca minor	.....	..	...	.....B	.....HW
ChN	Compos	Senecio cineraria	.....	..	C..	.....	.....
P42m	Pinace	Pinus nigra	.....	D.	...	.....	...H...
P 1m	Berber	Mahonia aquifolium	..G..	..	...	.....	.....HW
P35m	Fagace	Castanea sativa	.....	..	...	.....	.....W
P40m	Fagace	Quercus cerris	.....	..	...	.....	.....S.W
P25m	Fagace	Quercus ilex	.....	..	C..	.....	.....S.W
P34m	Fagace	Quercus rubra	.....	..	...	.....	.....W
P24m	Salica	Populus alba	.....	..	...	.....	.....HW
P37m	Salica	Populus x canescens	.....	D.	...	.....	.....W
P 1m	Ericac	Gaultheria shallon	.....	..	...	.....	.....HS.W
P 5m	Ericac	Rhododendron ponticum	.....	..	...	.....	...BHS.W
P10m	Rosace	Prunus laurocerasus	..G..	..	...	.....	.....SHW
P 2m	Legumi	Lupinus arboreus	....T	D.	...	.....	.....

P29m	Legumi	Robinia pseudoacacia	.....	..	...	.....	.....	SH.
P 3m	Cornac	Cornus sericea	.....	..	...	.....	.....	W
P30m	Acerac	Acer platanoides	.....	..	...	.....	.....	W
P35m	Acerac	Acer pseudoplatanus	.....	..	...	.....	.....	HW
P 5m	Buddle	Buddleja davidii	.....	..	CWI	.....	.....
P 2m	Caprif	Leycesteria formosa	.....	..	...	.....	.....	SHW
P 2m	Caprif	Symphoricarpos albus	.....	..	...	.....	.....	SHW
Hyd	Azolla	Azolla filiculoides	.....	..	...	.....	SW.....	
Hel	Crassu	Crassula helmsii	.....	..	...	.....	SW.....	
Hyd	Hydroc	Elodea canadensis	.....	..	...	.....	SW.....	
Hyd	Hydroc	Elodea nuttallii	.....	..	...	.....	SW.....	

APPENDIX 6 SOUTHERN SPECIES THOUGHT LIKELY TO INCREASE IN A WARMER CLIMATE, IN RELATION TO HABITAT

Habitats (columns) are grouped and labelled with initial letters as follows.

Tillage Horticulture Garden Waste Transport
 Dune and shingle Saltmarsh
 Coast rock Walls Inland rock
 Lawn Unmanaged grass Permanent grass Track Bank
 Stream Wetland Bog Heath Shrub Hedge Wood

Family Species	THGWT	DS	CWI	LUPTB	SWBHSW
1 Therophytes (annuals)					
Ranunc Ranunculus muricatus	.H.W.	..	...	.....	.....
Amaran Amaranthus deflexus	.H.W.	..	...	.....	.....
Portul Portulaca oleracea	.H.W.	..	...	.....	.....
Crucif Coronopus didymus	.H.W.	..	...	.....	.....
Crucif Diplotaxis muralis	..GW.	..	...	.....	.....
Crucif Erysimum cheiranthoides	T..W.	..	...	.....	.....
Euphor Mercurialis annua	.H.W.	..	...	.....	.....
Oxalid Oxalis stricta	.H.W.	..	...	.....	.....
Solana Datura stramonium	...W.	..	...	.....	.....
Solana Nicandra physalodes	...W.	..	...	.....	.....
Boragi Amsinckia lycopsoides	T....	..	...	.....	.....
Boragi Amsinckia micrantha	T....	..	...	.....	.....
Compos Conyza sumatrensis	...W.	..	...	.....	.....
Compos Senecio squalidus	...W.	..	...	.....	.....
Gramin Anisantha madritensis	...W.	..	...	.....	.....
Gramin Cynosurus echinatus	...W.	D.	C..	.....	.....
Gramin Lagurus ovatus	.....	D.	...	.....	.....
Gramin Setaria viridis	...W.	..	...	.....	.....
	361*	2.	1..	.....	.....
2 Biennials					
Legumi Melilotus altissimus	...W.	..	...	.U...	.....
Legumi Melilotus officinalis	...W.	..	...	.U...	.....
Onagra Oenothera stricta	.....	D.	C..	.....	.....
	...2.	1.	1..	.2...	.....
3 Geophytes					
Oxalid Oxalis latifolia	...W.	..	...	.....	.....
Oxalid Oxalis pes-caprae	.HGW.	..	...	.....	.....
Liliac Allium neapolitanum	...W.	..	...	.....	H.
Liliac Allium roseum	...W.	D.	...	.....	H.
Liliac Nectaroscordum siculum	...W.	..	...	.....	W
Iridac Gladiolus communis	.H.W.	..	...	.....	.....
	.216.	1.	...	.....	21

4 Hemicryptophytes

Crucif	Diplotaxis tenuifolia	...W.	..	.W.	.....	.....
Halora	Gunnera tinctoria	.....	..	..	.....	S.....
Onagra	Epilobium pedunculare	.....	..	..	...T.	S.....
Umbell	Foeniculum vulgare	...W.	..	..	.U...	.....
Umbell	Hydrocotyle moschata	.....	..	..	L....	.....
Umbell	Hydrocotyle novae-zeela	.....	..	..	L....	.....
Boragi	Pentaglottis sempervire	...W.	..	..	.....	.....H.
Labiati	Melissa officinalis	...W.	..	..	.....	.....H.
Scroph	Antirrhinum majus	...W.	..	.WR	.....	.....
Lentib	Pinguicula grandiflora	.....	..	..	.....	..BH...
Juncac	Juncus planifolius	.....	..	..	..PT.	.....
Juncac	Juncus subulatus	.....	.S	..	.....	.....
Gramin	Agrostis castellana	.....	..	..	L....	.....
Gramin	Cynodon dactylon	...W.	..	..	L....	.....
Gramin	Dactylis polygama	.....	..	..	.....	.....W
Gramin	Paspalum distichum	.....	..	..	.....	..W.....
Gramin	Polypogon viridis	...WT	..	..	.....	.....

		...71	.1	.21	4112.	2111.21

5 Chamaephytes

Selagi	Selaginella kraussiana	.....	..	..	....B	.....
Urtica	Soleirolia soleirolii	.....	..	.W.	L...B	.....
Aizoac	Carpobrotus edulis	.....	D.	C..	.....	.....
Aizoac	Carpobrotus glaucescens	.....	D.	C..	.....	.....
Aizoac	Disphyma crassifolium	.....	D.	CW.	.....	.....
Ericac	Daboecia cantabrica	.....	..	..	.....	...H...
Oxalid	Oxalis corniculata	..GW.	..	..	.....	.....
Labiati	Thymus vulgaris	.....	..	.W.	....B	.....
Compos	Erigeron karvinskianus	.....	..	.W.	....B	.....
Compos	Otanthus maritimus	.....	D.	..	.....	.....

		..11.	4.	34.	1...4	...1...

6 Phanerophytes

Pinace	Pinus pinaster	.....	D.	..	.....	.....
Pinace	Pinus radiata	.....	..	..	.....	...H...
Laurac	Laurus nobilis	.....	..	C..	.....	...S..
Aizoac	Lampranthus falciformis	.....	..	CW.	.....	.....
Aizoac	Oscularia deltoides	.....	..	.W.	....B	.....
Chenop	Atriplex halimus	.....	.S	..	.....	.....
Polygo	Muehlenbeckia complexa	.....	..	C..	.....	...SH.
Ericac	Arbutus unedo	.....	..	..	.....	...S..
Ericac	Erica lusitanica	...T	..	..	.....	...H...
Pittos	Pittosporum crassifolium	.....	..	C..	.....	...S..
Rosace	Cotoneaster horizontalis	.....	..	CWI	.....	.....
Rosace	Cotoneaster integrifolius	.....	..	CWI	.....	.....
Rosace	Prunus lusitanica	...W.	..	..	.....	...S.W
Legumi	Genista hispanica	.....	..	..	.....	...H...
Legumi	Spartium junceum	...WT	..	..	.....	.....
Myrtac	Leptospermum scoparium	.....	..	..	.....	...S..
Umbell	Bupleurum fruticosum	...T	..	..	.....	.....
Caprif	Viburnum tinus	.....	..	C..	....B	...S..
Gramin	Pseudosasa japonica	.....	..	..	.....	...W

		...23	11	742	....2	...3712

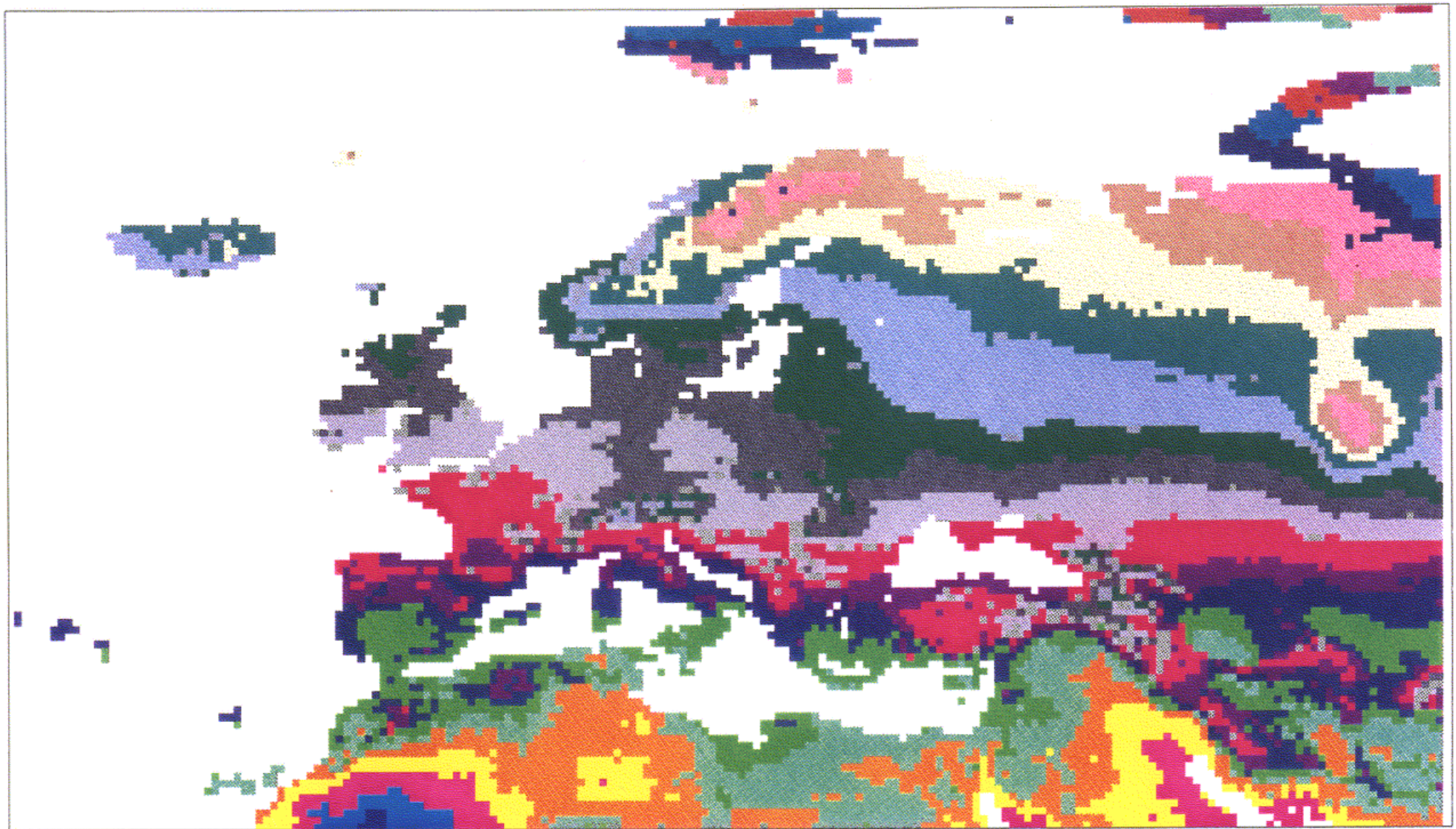


Figure 2.1. European Climate data 0.5° long x 0.5° lat resolution – Axis 1



Figure 2.2. European Climate data 0.5° long x 0.5° lat resolution – Axis 1

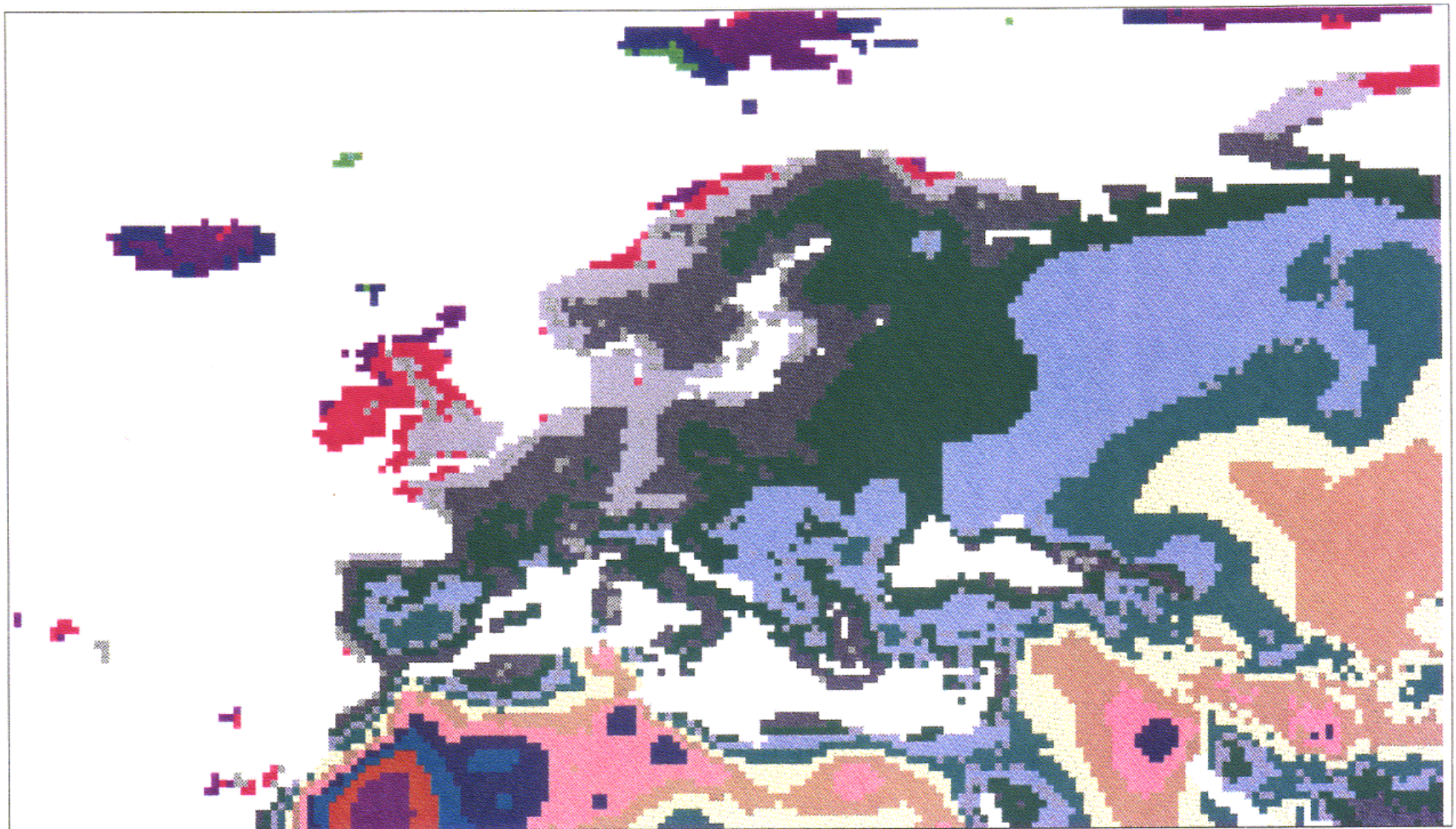


Figure 2.3. European Climate data 0.5° long x 0.5° lat resolution – Axis 2

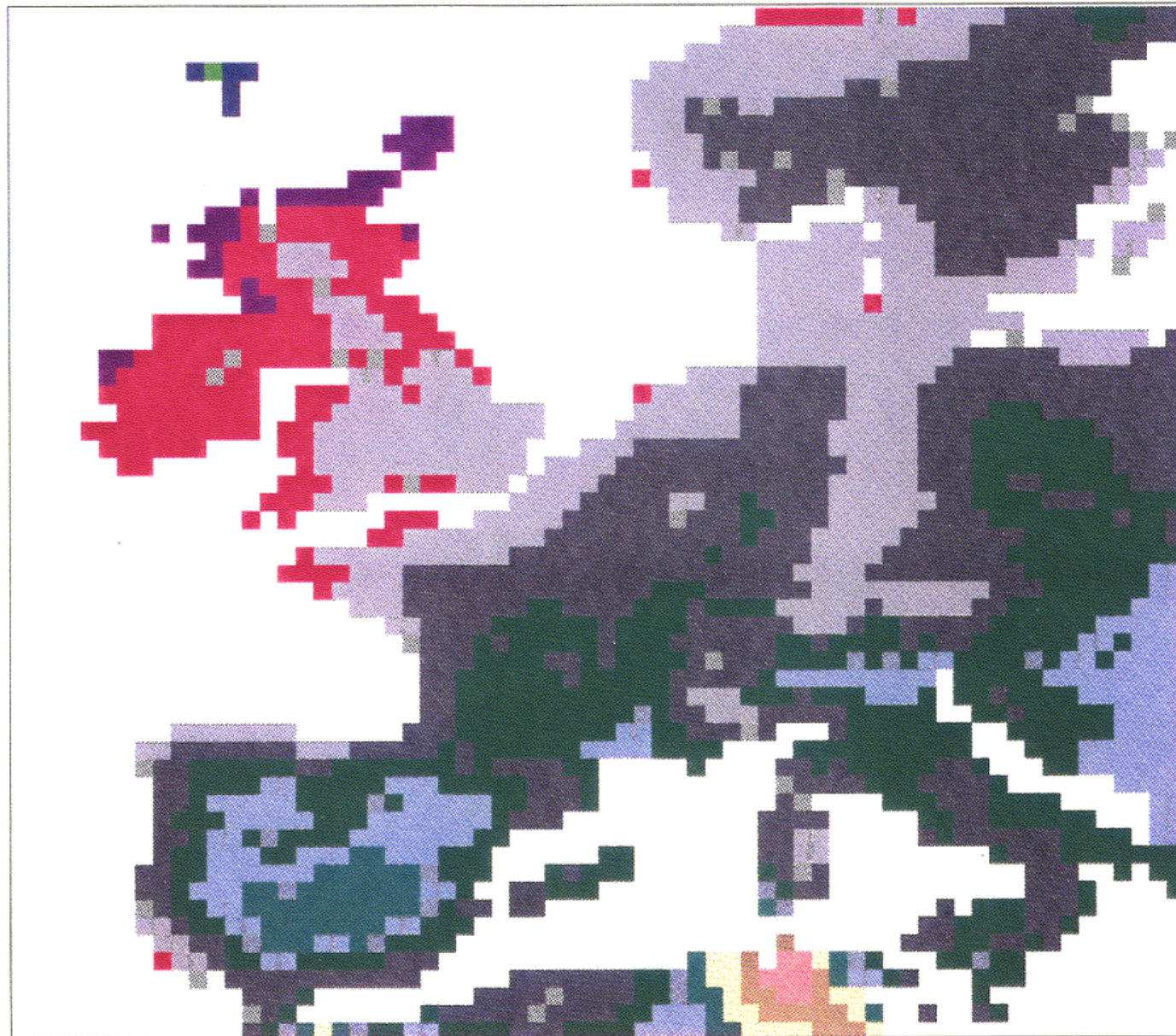


Figure 2.4. European Climate data 0.5° long x 0.5° lat resolution – Axis 2