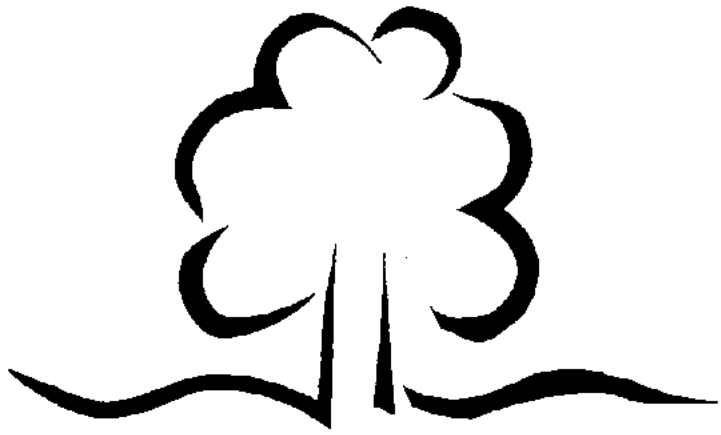


COUNTRYSIDE
RECREATION
NETWORK

Recreation and the Natural Environment

18 June 1993
York

Workshop Report

Recreation and the Natural Environment Workshop 18 June 1993

Chairman's Welcome *(Roger Orgill, The Sports Council)*

The Chairman welcomed sixty delegates from a wide variety of backgrounds to the Viking Hotel in York for the first CRN workshop to consider the relationship between recreation and the natural environment. A number of aspects of the issue came under particulat scrutiny:

- research into the impacts of recreation on the natural environment;
- a detailed case study as to how such research is carried out;
- the role of the statutory planning system as a framework for the implementation of recreation policy;
- research into policy and management responses to the effects of recreation on the natural environment;
- the use of education and information as a management tool to encourage responsible use of the countryside;
- future directions in research, policy and management.

He hoped that delegates would take away a better understanding of the relationship between recreation and the natural environment through recognising the links between research into, and planning and management of the natural environment.

Recreation and the Natural Environment: a Research Review

Roger Sidaway, Consultant

Unbiased, objective research may be seen as crucial for underpinning the development and implementation of recreation policy and management. With this in mind, Roger Sidaway presented an overview of the relationships between recreation and the natural environment, including the scale and range of the effects. The overview was based on a review of research being undertaken by Roger for Scottish Natural Heritage and the Sports Council GB.

Terms of Reference

- identify the range and characteristics of physical impacts (positive as well as negative) caused by open-air recreation and sport on the natural environment;
- identify the extent to which the impacts have been researched and the effectiveness of the research methods used;
- identify and summarise the key recommendations and implications arising from the research;
- identify the management responses that have been used to manage the impacts and, where possible, to secure environmental benefits (such as habitat retention and improvement); and
- identify gaps in the research undertaken, and make recommendations as to possible research priorities.

Method

The review is a desk study of existing literature which is attempting to synthesise previous research reviews, augmented by bibliographic searches of the library databases of Scottish Natural Heritage (SNH) and the UK Sports Councils.

Most of the previous literature reviews had attempted to assess recreational impacts on habitats eg. woodland, inland water bodies. The exceptions have been a recent review of Water Skiing and the Environment (UK CEED, 1993), or problem-oriented case studies, such as Sidaway (1988), which have taken specific recreational activities as their focus.

Accessibility of Research Literature

The bibliographic searches of Scottish Natural Heritage and Sports Council libraries were very variable in the amount of relevant references that were obtained (see Table 1). Just over one third (275) of the total number of references obtained in these searches (765) were generally relevant to this study and of those 107 had not been previously identified from other sources.

Table 1: Information Retrieved from Bibliographic Searches

Library Source	Total Refs.	Generally Relevant	Type [1]					Area			
			SIS	RR	PD	HC	MGT	UK	USA	ROW[2]	NPI[3]
SNH	85	75	34	16	24	5	-	62	9	8	22
SSC	261	45	2	8	19	-	19	43	1	1	1
Vital Abstracts	252	64	31	11	10	-	12	14	28	22	41
SC	143	74	6	3	20	2	63	69	1	4	22
Sports Disc.	24	8	5	1	-	1	1	3	3	2	5
Total:	765	275									107
Merilainen	548	5	4	-	-	-	1	1	2	2	3

Notes:

1 SIS = Specific Impact Studies; RR = Research Reviews or Articles; PD = Problem Descriptions; HC = Habitat Creation; MGT = Impact Management

2 ROW = Rest of World

3 NPI = Not previously identified

The aim has been to identify work conducted in the UK and one of the purposes of the bibliographic searches was to identify studies or review articles that had not been previously identified. Within this narrow band of literature the "yield" from the bibliographic searches was low: 15 specific impact studies and 2 research reviews were identified within the UK which had not been obtained from other sources.

While these numbers reflect the fact that relatively little original research on this topic is being done (see later), it also raises questions about the reliability of the data bases. They are clearly not comprehensive in that many relevant studies identified elsewhere are not included in the databases.

This raises an important issue for CRN. Given the relevance of this topic to member agencies and the likelihood of continuing work in this field, it seems that CRN should give serious consideration to establishing a common data base and ensuring that it covers a wider range of recreational impacts. Figures 1 and 2 outline the extent of the relationship between habitats, impacts and recreation activities.

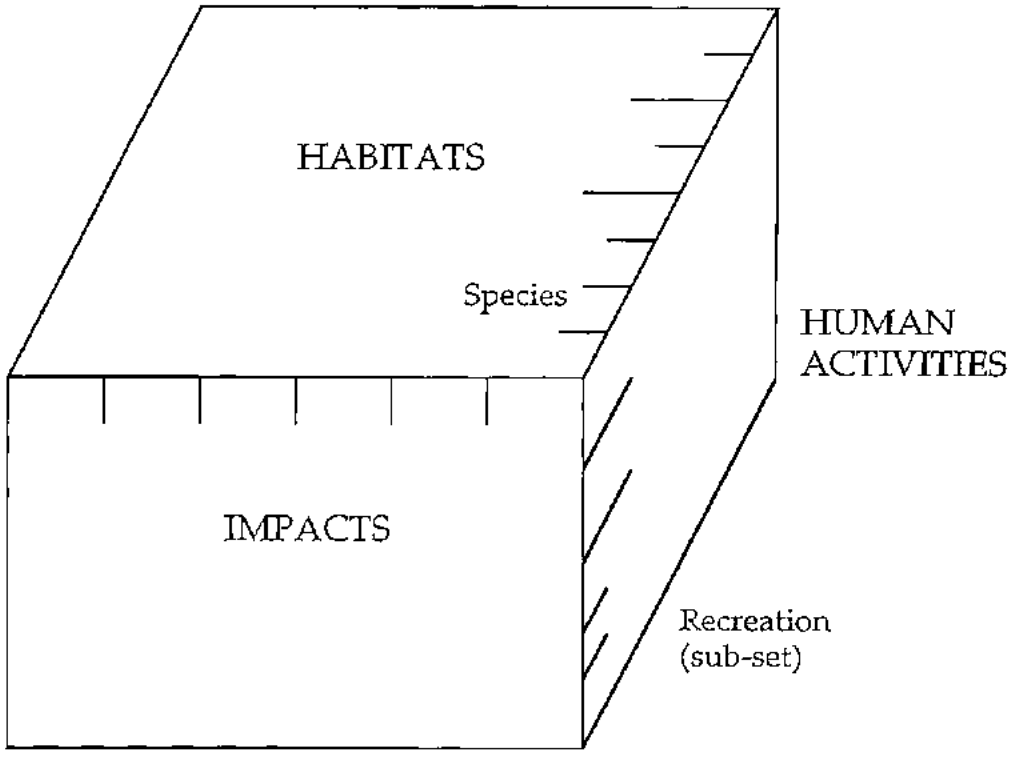
Figure 1: Habitats, Impacts and Activities

Habitats	*Recreation Impacts*	*Recreation Activities*
Mountain and Moorland	Disturbance to Birds and Mammals	Walking/Hill Walking
Beaches and Dunes	Damage to Vegetation	Climbing
Grasslands	Noise	Camping
Lowland Heaths	Pollution	Orienteering
Woodland	Positive Impacts	Running
Estuaries	Erosion/Effects on Soils	Horse Riding
Inland Water Bodies	Hydrology/ Geomorphology	Off-Road Cycling
Inland Waterways	Damage to Marine Life	Motor Sports
Marine		Golf
		Game Shooting
		Informal Activities
		Angling
		Canoeing
		Water/Jet Skiing
		Sailing
		Sub-aqua
		Wildfowling
		Windsurfing
		Ballooning
		Gliding/Hang Gliding
		Light Aircraft
		Model Aircraft
		Parachuting

The Extent of Research on Recreational Impacts

This review is confined to research conducted in the UK. Specific impact studies and research reviews have been identified for the main impacts and set out in Table 2 by time period so that trends can be identified. It suggests that there has been a steady interest in recreational impacts over the past 20 years but that interest in specific activities and types of research activity have varied. Thus the number of studies on damage to vegetation has declined whilst that on disturbance to birds has remained roughly constant. Nevertheless, there has been a steady stream of research reviews with increasing interest in disturbance to birds over the last five years.

Figure 2: Habitats, Human Activities and Impacts



Research studies of vegetation tend to consider habitats x impacts; of disturbance to bird species x impacts.

Research reviews tend to cover impacts x habitats, occasionally impacts x actvities.

Data bases tend to be organised by habitats/disciplines/activities, but not impacts.

Managers usually want to know about impacts x activities for specific habitats.

Table 2: Extent of UK Research on Damage to Vegetation and Disturbance to Birds

	Specific Impact Studies*		Research Reviews**		
	Damage to Vegetation	Disturbance to Birds	Damage to Vegetation	Disturbance to Birds	Total
	Number of UK Studies				
Pre 1980	19	12	7	0	38
1980-1984	8	13	5	3	29
1985-1989	7	14	3	3	27
Post 1990	2	6	6	9	23
Total	36	45	21	15	117

* Studies which specifically examine the relationship between recreation and habitats/species

** Includes proceedings of symposia/workshops which review a recreation/conservation topic, eg. meetings of the former Recreation Ecology Research Group

However, the research base to sustain the research reviews is insubstantial. Most of the vegetation studies were conducted prior to 1980, while most of the disturbance studies have been of impacts on inland water, and very few species have featured in the disturbance studies with little or any replication over time or in different parts of the country. Consequently most of the research reviews have had to rely on research from overseas, from North America for the vegetation studies and from the Netherlands for the ornithological work. Many of the research reviews are uncritical in considering whether it is justified to extrapolate research results from different climatic and social systems to conditions in Britain. Further consideration will be given to these points in a more detailed topic study of disturbance to birds which will form a part of this project.

Table 2 covers only two impacts, as little work was identified on other impacts to sustain this type of analysis.

Assessment of Significant Impacts

At this stage of the study, the assessment of the significance of recreational impacts is necessarily tentative. The present state of the art can be summarised as follows:

Damage to Vegetation

The conservation significance of damage to vegetation caused by recreation is rarely assessed, largely because the focus of present work in Britain has moved on from trampling studies to applying management techniques.

More recently the uplands have been a major focus of attention in Scotland and many of the national parks in England and Wales. Nevertheless such problems are very local in their impact and a review of Scottish Mountain Footpaths (Aitken, 1984) considered that:

"...while ecological effects may be locally severe on the path, and may extend beyond it, sometimes for considerable distances, as a result of vegetation burial by gravel wash and by walkers straying from rough path surfaces...mountain paths do not as a rule present any significant threat to ecological resources...they may even on balance help to reduce wider disturbance to flora and fauna by concentrating most walkers on a restricted line."

Some recreational activities can have positive impacts on the conservation of relic habitats of high value. For example, the rough areas of many golf courses have, in effect, provided protection for semi-natural vegetation and have acquired SSSI status.

Disturbance to Birds

Various reviews of recreational disturbance and birds on inland water bodies have suggested that any impacts are more likely to be of local rather than national significance (Tuite, 1982; Watmough, 1983; and Ward, 1990). The most usual effects are to redistribute wintering waterfowl whose population levels have tended to increase in recent years. Indeed, recreation may have some positive impacts in influencing the flooding of worked-out sand and gravel deposits, thereby increasing the resource available for wildlife. There is, however, continuing concern about possible disturbance to moulting wildfowl and migrating waders whose feeding patterns could be disrupted on inter-tidal zones of estuaries.

As far as breeding populations are concerned, the number of specific impact studies is very small, few species have been studied with virtually no replications. The most pronounced effects are the reductions in local populations of birds at certain coastal breeding sites eg. terns or possibly at water margins more generally (see for example Tydeman, 1977; Watson et al, 1988; and Yalden, 1992). The situation regarding the breeding waders in the uplands is uncertain and controversial. It seems likely that populations in popular access areas, such as the Peak District National Park, may have been locally displaced to less suitable territories but not affected overall (Yalden and Yalden, 1990; Brown and Shepherd, 1991). Other studies highlight the significant effects of agricultural grazing on habitat affecting upland bird populations with recreational disturbance having a marginal effect, if at all (Brindley, Lucas and Waterhouse, 1992).

There is some evidence of habituation to disturbance, particularly in the commoner species but conversely birds not normally exposed to disturbance are more likely to be sensitive and this can affect either individuals within the same species or, in the remoter areas, species such as eagle, divers, and grebes. However, the number of such situations is relatively small and in most cases should be amenable to appropriate management action.

Recreational Impacts in Perspective

In the context of major environmental threats, the impacts of sport and outdoor recreation are not of major significance but can cause local damage which in most circumstances can be ameliorated by good conservation practice. Four important caveats should be made to this general statement:

- first, when sport and recreation are coupled with economic development, then the associated tourist facilities can result in a significant loss of habitats, eg. the development of ski resorts.

- second, recreational impacts can be particularly acute in habitats which lack resilience. In these cases the biological system has a very low dynamic and recovery cycles are very long, eg. alpine and certain coastal ecosystems.

- third, increasing mobility and affluence, coupled with the introduction of new technology, provide a fertile market for new recreational activities. Examples of such new sports are jet-skiing and mountain biking. However, their most drastic effects are usually only temporary and should only last until management measures are developed to ameliorate them.

- fourth, cumulative and combined effects of small-scale impacts can incrementally change environmentally quality. It has been suggested that the exploration of cave systems leads inevitably to some deterioration. Any management action can only reduce the rate of change (NCA, 1982). The investigation of recreational impacts rightly focuses on individual activities, thereby assessing the significance of the problem and hopefully suggesting remedial action. However, a very large number of small impacts of different forms: biological, visual and social, is likely to lead over a long period of time to some deterioration of environmental quality. The effects on wildlife may be minimal but the perceived social impact may be significant and a real political force. This may help to explain why relatively objective assessments of wildlife impacts are frequently ignored.

Comments

Councillor John Sully (Leeds City Council)

There is a question as to whether the research undertaken is statistically sound.
Have any traffic generation studies been made?
There is a lack of "before and after" studies.

Tony Philpin (Pennine Way Co-ordinating Committee)

A considerable amount of research carried out by managers remains unpublished.

Brian Parker (British Orienteering Federation)

There is a numerical decline in the number of studies completed, but has the quality improved?

John Nash (Lake District National Park)

Plenty of long-term research is being carried out (monitoring habitats and the impacts of recreation, for example); this being disguised from the figures

Roger Sidaway (Consultant)

Considerable effort is being expended to assess the potential effects of wider impacts on the environment such as pollution, but much of this literature is probably inaccessible.

There is a general need to broaden the focus of research to the impacts of societal changes—the Countryside Commission's initiative to examine the effects of traffic generated by recreational use is to be welcomed.

The "cause and effect" relationship matters only if we are attempting to attribute guilt—often the concern of environmentalists.

A major problem of how future research should be structured exists.

The points made about the amount of hidden research and the good quality of research being carried out should be emphasised

Orienteering and Breeding Bird Communities: A Case Study

Anne Goodall, Ecosurveys Ltd

Roger Sidaway's paper outlined the nature of past research into the relationship between recreation and the natural environment. How are studies carried out in practice, however, and what are the lessons to be learnt? The following research study illustrates the nature and degree of one recreational activity on the natural environment, illustrates the effects of one new recreational activity, exposes the role of public opinion in prejudging the impacts of a recreational activity, and suggests the need for further studies. Figures (i) to (ix) on the following pages illustrate the following synopsis of Anne's presentation.

The survey of breeding birds of Brandon Park, Thetford Forest, Suffolk was carried between 2nd and 22nd May 1991 to determine:

- whether the activity associated with the Orienteering Event caused significant disturbance to the breeding birds and if so, whether disturbance was related to intensity of activity; and,
- the most cost-effective method to use in such a survey.

Significant disturbance was defined, in order of increasing severity, as:

- a change in activity immediately after the event (more or fewer males singing, more or fewer females seen), returning to previous activity levels within a few days, with no change in numbers recorded;
- a measurable increase or decrease in number of birds recorded immediately after the event (with or without a change in activity) returning to previous numbers within a few days; and
- a decrease in number of birds recorded immediately after the event, not returning to previous numbers within ten days.

The survey adopted the null hypothesis that there would be no measurable effect, and study methods were designed to test this.

Three methods in common use—point counts, strip transects, and territory mapping—were used independently. The same amount of time was allotted to each method, and all surveys carried out all methods in rotation. All birds seen or heard were mapped using "Common Bird Census" activity symbols in all methods, so that activity could also be monitored. Fieldwork took place between 0530 hrs and 1100 hrs.

Survey work was carried out ten days before and ten days after the event.

Three adjacent areas were used to control for seasonal and other effects, and were surveyed by all three methods.

The breeding bird species present fell into four groups or "guilds": canopy-nesters, hole-nesters, scrub-nesters and ground-nesters.

59 point count locations selected on a stratified-random basis were used. Survey work was divided into four five-day periods, with each count locus visited twice in each five days. The order of visiting each point was reversed within each five-day period.

Five transects totalling 29 km were surveyed twice in each of the four five-day periods. The direction of each transect was reversed in each five-day period.

Two plots totalling 137 ha were surveyed by territory mapping. Each plot was visited daily for the ten days before and the ten days after the event.

Weather conditions were noted daily at the start and finish of the fieldwork. The weather was cooler and wetter in the first and third five-day periods than in periods two and four, but no large or abrupt change occurred during the survey.

All human and dog contacts were mapped each day to produce a background activity density map.

After completing their course, entrants were asked to mark the actual route, their name and their starting time, on maps provided. From these maps an event activity map was produced for use in the analysis. Starting times were used to produce a histogram of activity over the duration of the event.

Neither the transect nor the territory mapping survey produced any evidence of significant disturbance to any guild or species at any level of activity. The point count survey indicated only one effect, lower numbers of Woodpigeons in high activity areas immediately after the event.

For small areas, most information was provided by territory mapping. For sampling large areas, transects provided more data than point counts in most habitats. In open habitats, the longer time spent at each point compensated for the larger area covered on transects, providing as many bird registrations. Where detailed habitat mapping is not required, the use of transects is recommended.

Conclusions

The null hypothesis could not be disproved, that is there was in this instance, no measurable effect of significant disturbance caused by the human activity associated with the orienteering event.

It was noted, however, that there is a need for the research to be repeated in pristine areas where the resident bird population is perhaps less used to disturbance compared to this heavily used forest area and adjacent country park.

The full report is available from the British Orienteering Federation, Riversdale, Dale Road North, Darley Dale, Matlock, Derbys. DE4 2HX Tel. 0629 734042

Figure (i) Location Map

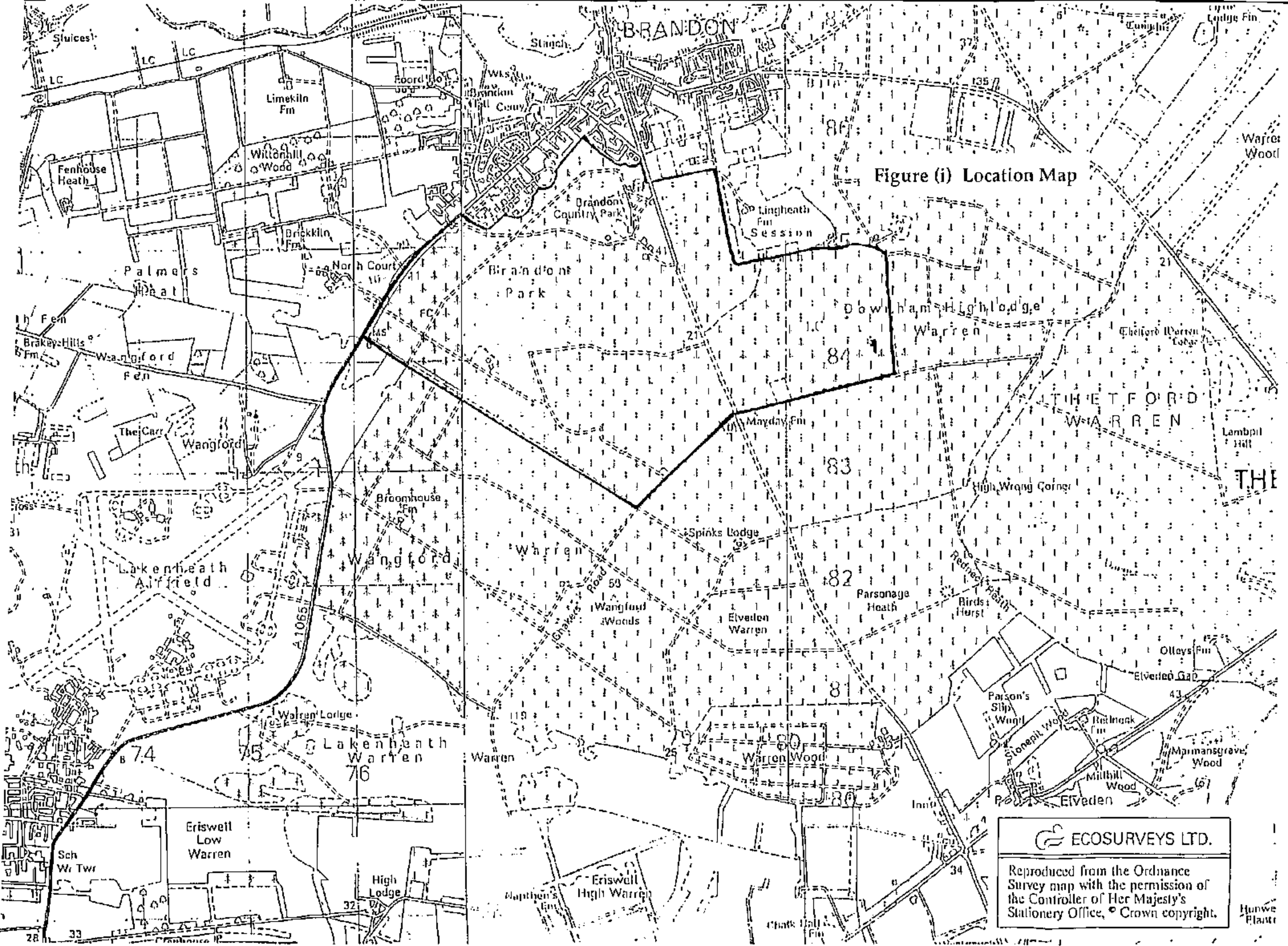
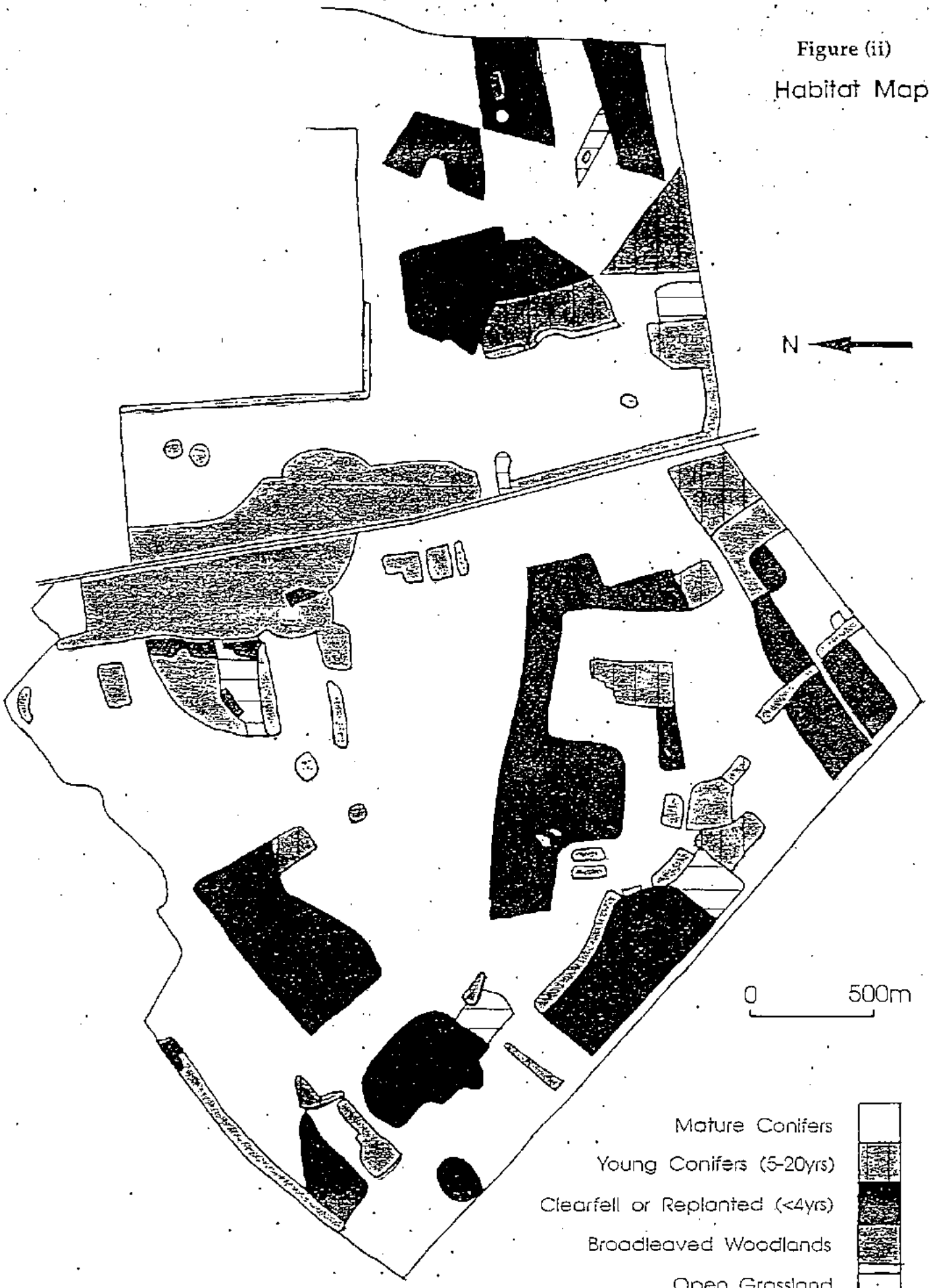


Figure (ii)

Habitat Map



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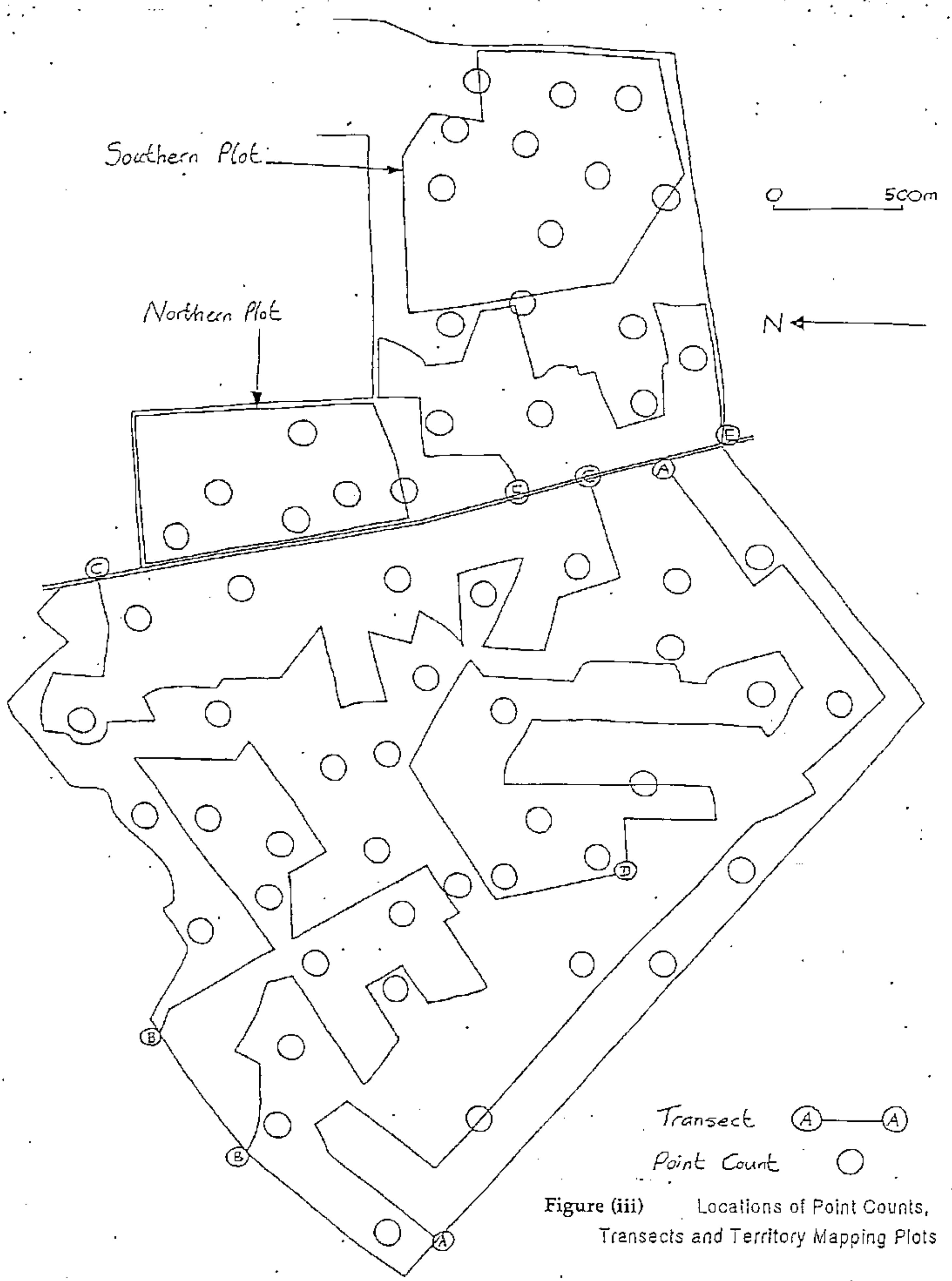
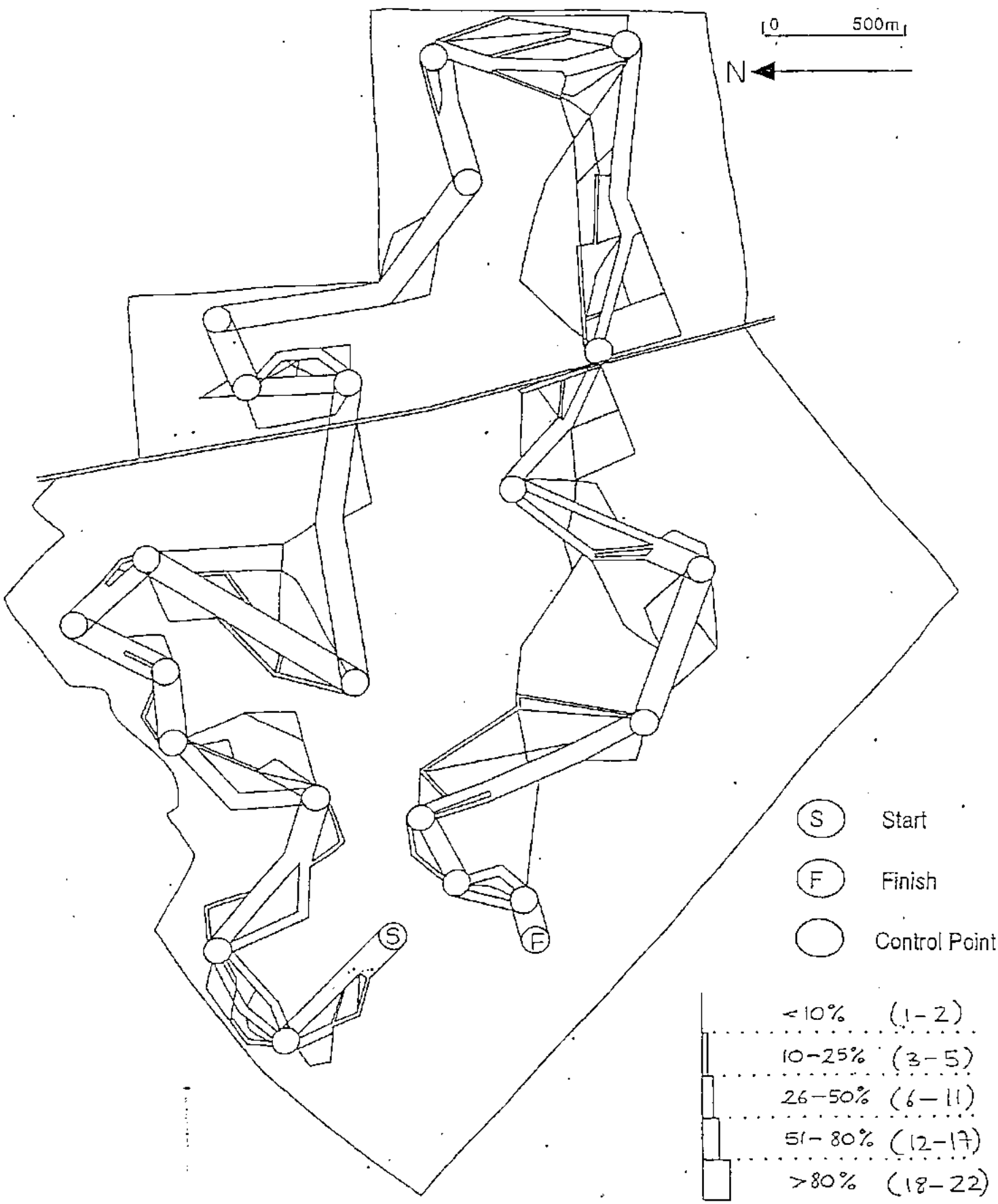


Figure (iii) Locations of Point Counts, Transects and Territory Mapping Plots

ECOSURVEYS LTD.

Figure (iv)

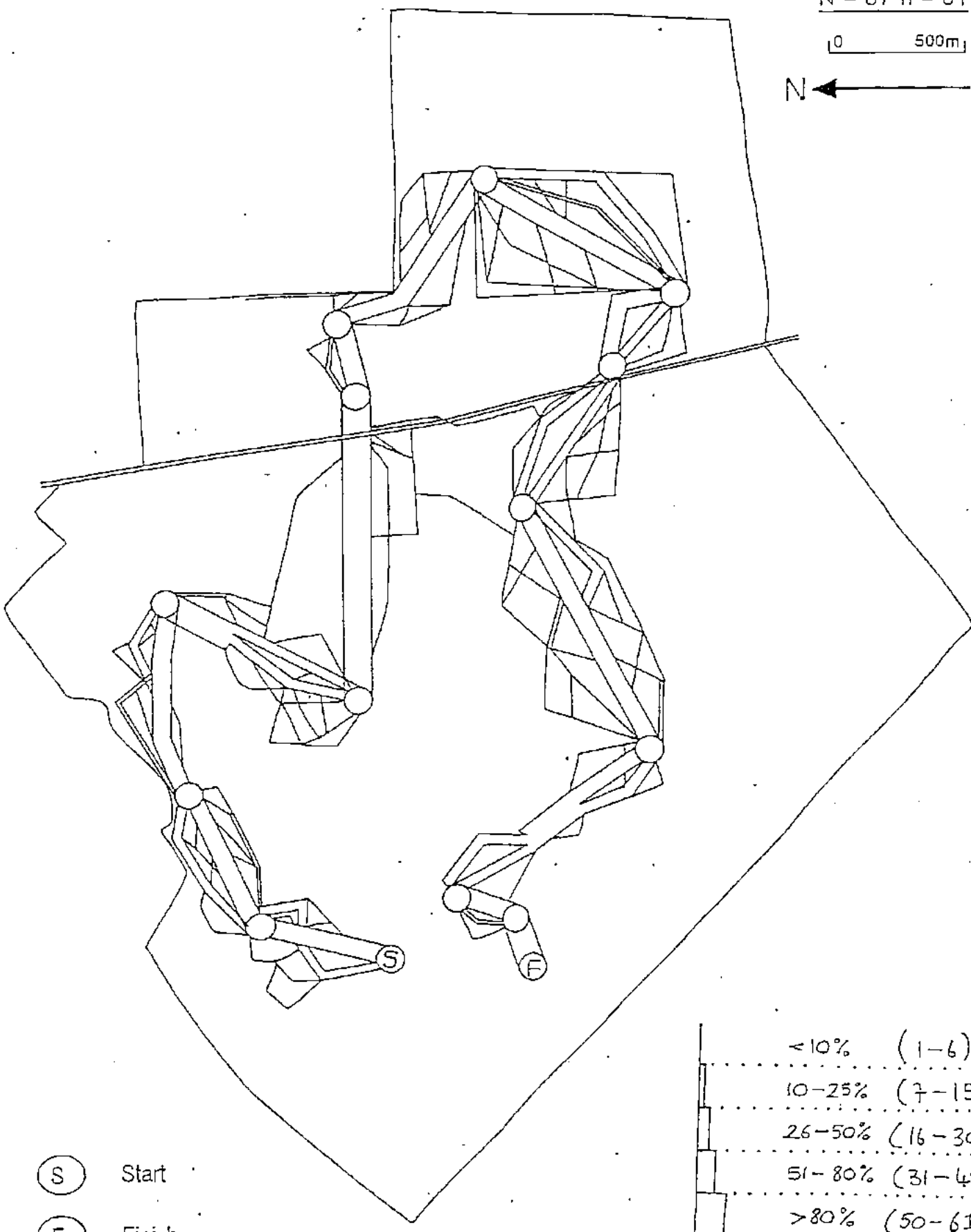
ROUTE A



ECOSURVEYS LTD.

Figure (v)

ROUTE C



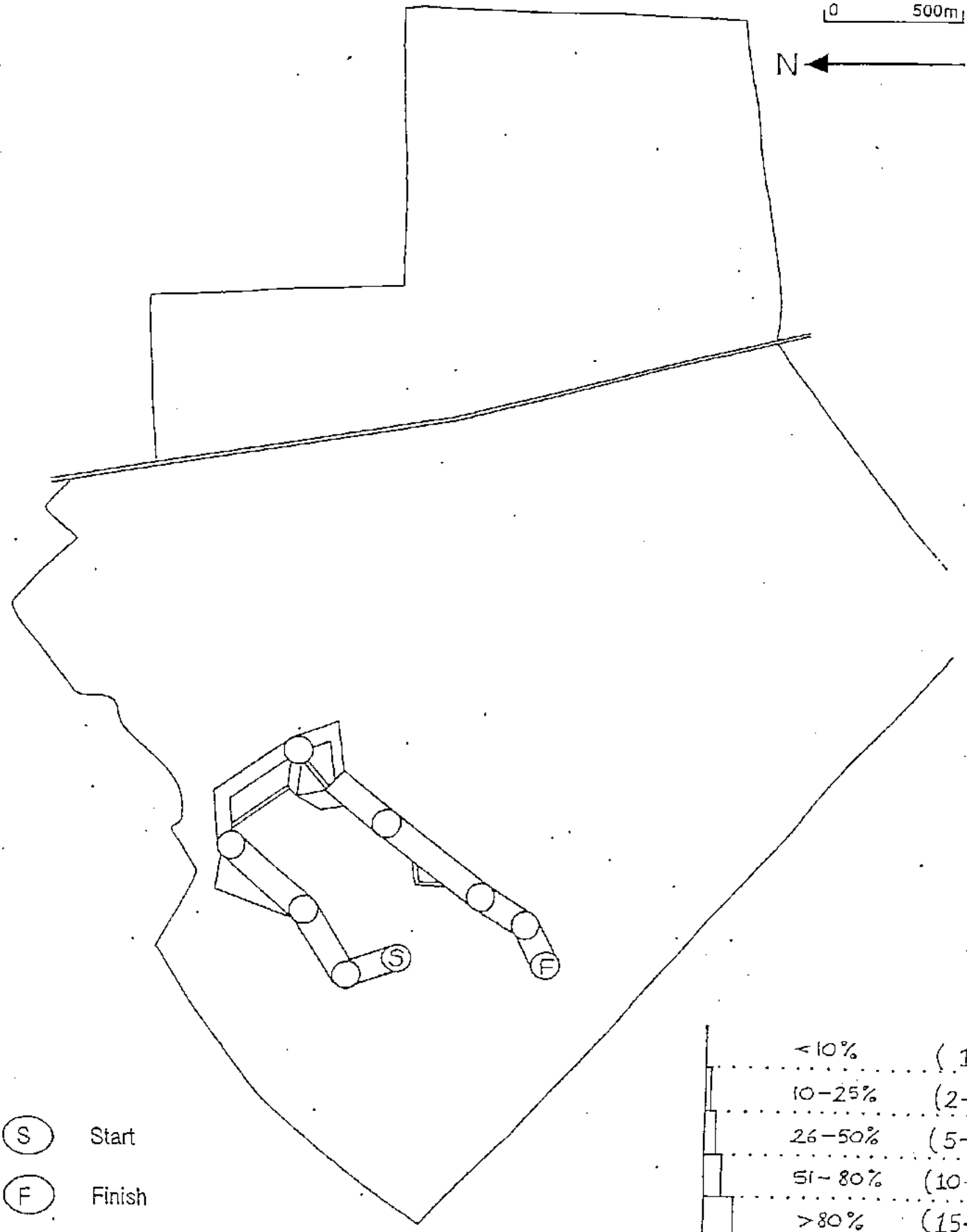
ROUTE L + "ORANGE"

Figure (vi)

N = 95 n = 18

0 500m

N



S Start

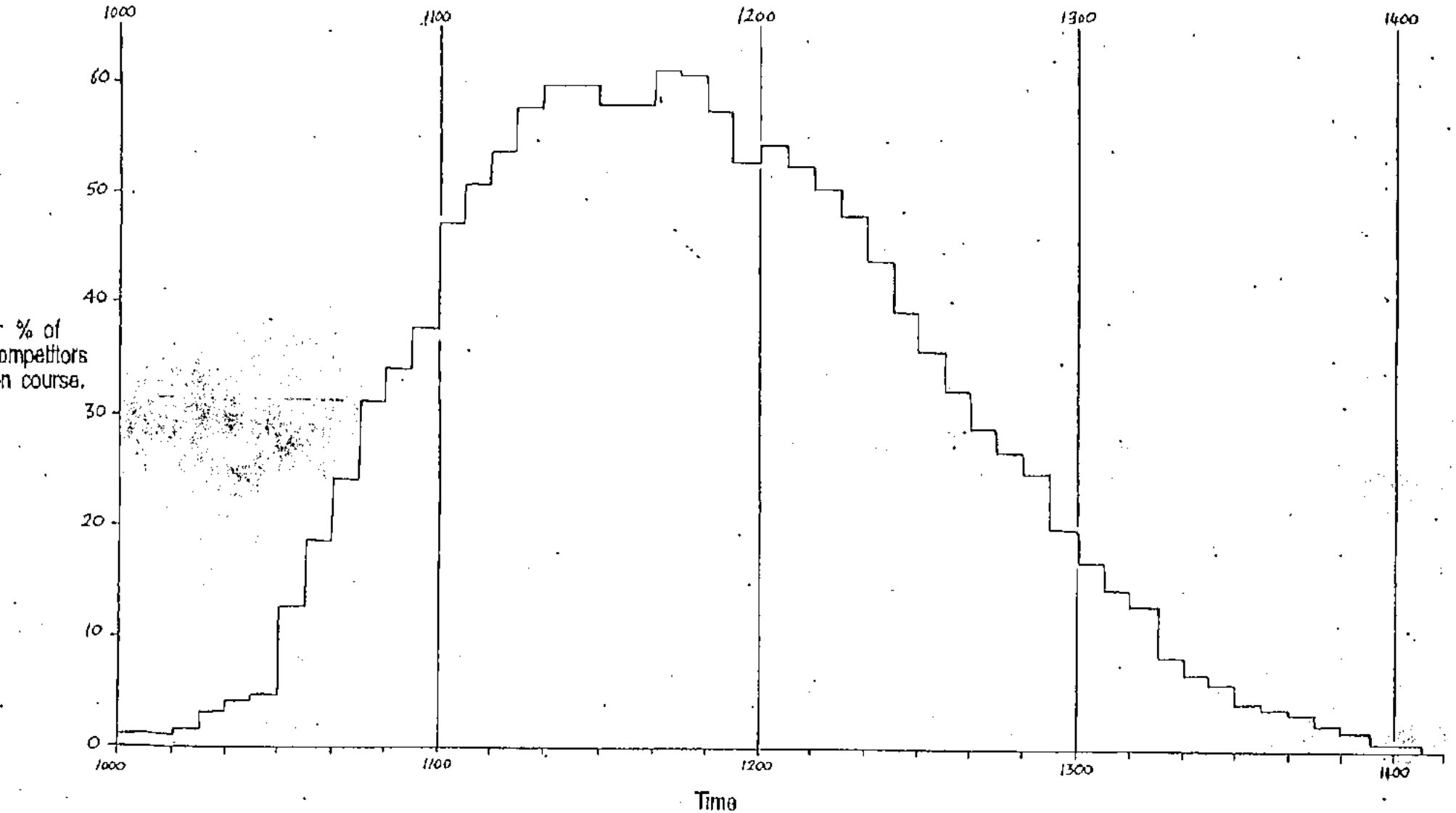
F Finish

Control Point

<10%	(1)
10–25%	(2–4)
26–50%	(5–9)
51–80%	(10–14)
>80%	(15–18)

ECOSURVEYS LTD.

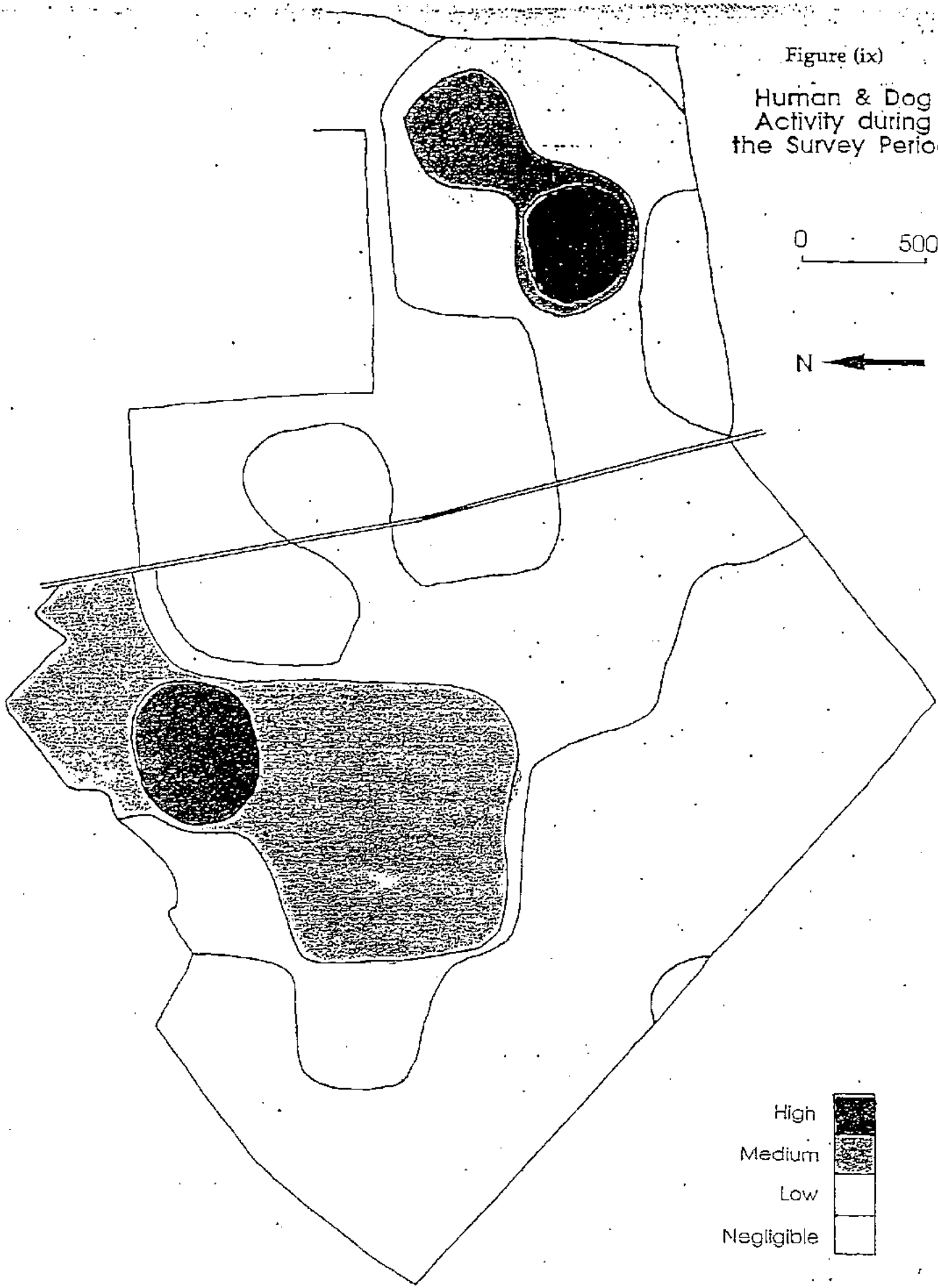

Figure (vii)
Levels of Event Activity
0
500m
N
High
Medium
Low
Control
ECOSURVEYS LTD.



% of Entrants active in Brandon Park in each Five Minute Period between 1000 - 1400 hrs.

Figure (viii)

ECOSURVEYS LTD.



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Planning for Recreation in the Countryside

Carol Davenport, Director Greater Manchester Countryside Unit

Pure research and empirical studies are only one side of the "recreation equation". The planning system plays a central role in the control and management of recreation activity and as such relies upon research to advance good thinking and practice. The planning process plays a central part in countryside recreation planning and management, primarily through its role in providing the legislative and guiding framework at the local authority level. The focus of this session was recreation policy and management on the urban fringe from a planning perspective. Experience from the suite of landuse plans drawn up for the Greater Manchester area was used, taking the accommodation of noisy sports as a particular example.

Planning for recreation in the countryside is determined by a number of contextual factors. These were outlined using a number of illustrative diagrams. Largely self-explanatory, these are shown on the following pages:

The complexity of the planning process is of particular note, the range of issues that have to be considered, many of which are intangible. However, the planning process must specifically look at issues of general amenity, landscape conservation and nature conservation.

Much of the research and guidance used by local planning authorities emanates from the "Big 3" specialist bodies—the Countryside Commission, English Nature and the Sports Council. The point to be stressed is that there is ultimately a balance to be drawn by a local planning authority, using the research and guidance in its own local context where it sees fit.

Carol went onto present a sequential illustration of the development of the legislative framework for planning and recreation policy in Greater Manchester. The policy documents illustrate a progressively more sensitive approach toward conservation and the environment from the Greater Manchester Structure Plan 1981 to the more detailed local initiatives under the Mersey Valley Local Plan and the Croal-Irwell Local Plan. This can also be seen in practice—from early heavy-handed, large-scale derelict land reclamation schemes to more sensitive conservation schemes. The role of the Local Plan is to reconcile competing land use demands and recreation can throw up some particularly contentious activities; the accommodation of such activities as motorcycling was dealt with differently in the Local Plans; some allocating sites, others not permitting noisy sports at all. Central to this however was the role of landscape enhancement to absorb pressure and the matching of activities to landscape type and recreational capacity, reflecting a more sophisticated approach to recreation management.

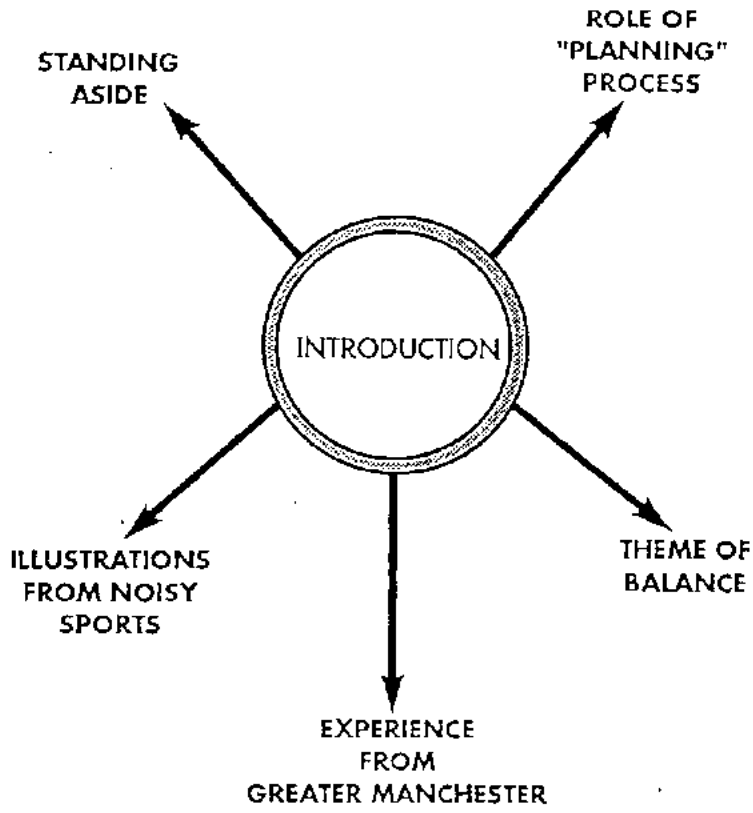
Thus in the example of the motorcycling, the general policy was to identify an appropriate area, control landuse and mitigate adverse impacts. Under the 1985 Strategic Guidance came the recognition that there were major opportunities for recreation in the countryside, crucially linking these with environmental improvement. This, once again, was reliant upon balancing provision and protection, feeding in the work carried out in non-statutory plans and various guidance documents (such as the NCC document "Planning for Wildlife in Metropolitan Areas") into the statutory planning process.

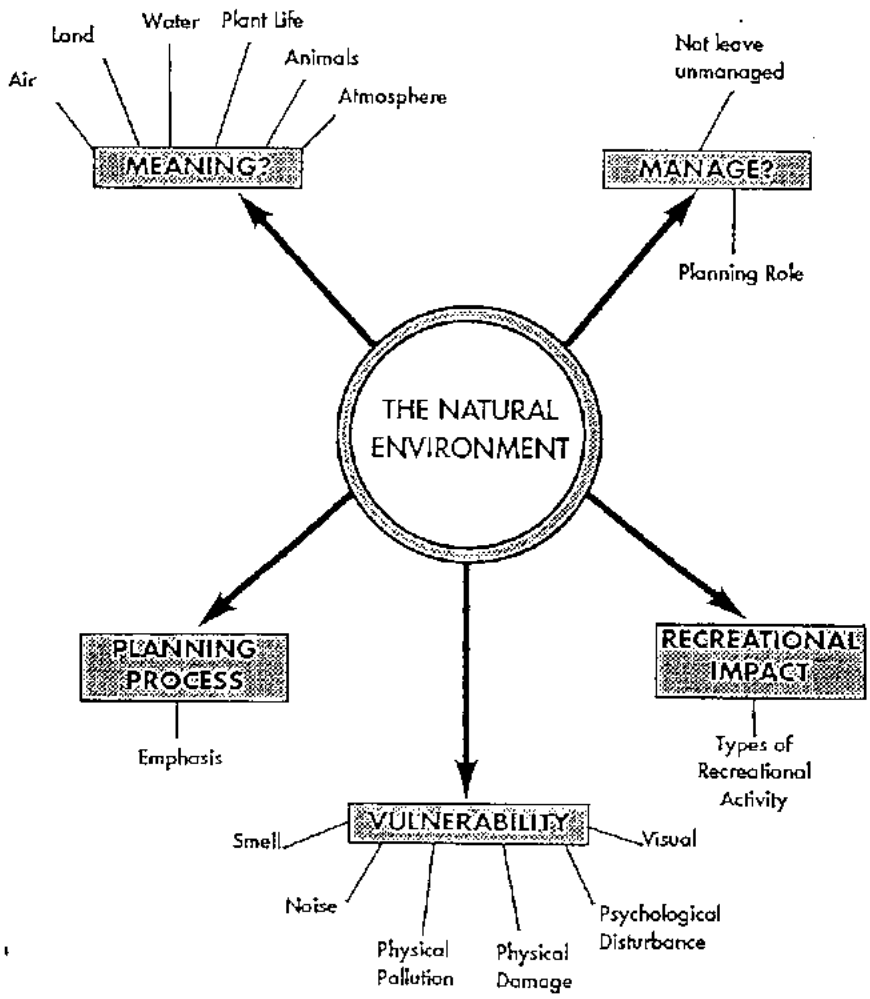
Conflict resolution has found its clearest expression in the River Valley Management Strategy (1993) covering all ten Greater Manchester Authorities. This reflects the need to provide a comprehensive framework for the statutory planning process in its dealings with recreation policy since UDPs can no longer include land management matters or very detailed proposals. It recognises the complexity of the recreation management task, the development of new thinking and the changing demands for recreational opportunities. Identifying appropriate sites for activities which inherently cause conflict, imposing constraints on their use and effecting environmental improvement to mitigate adverse effects is a central theme of the more sophisticated thinking behind the strategic approach.

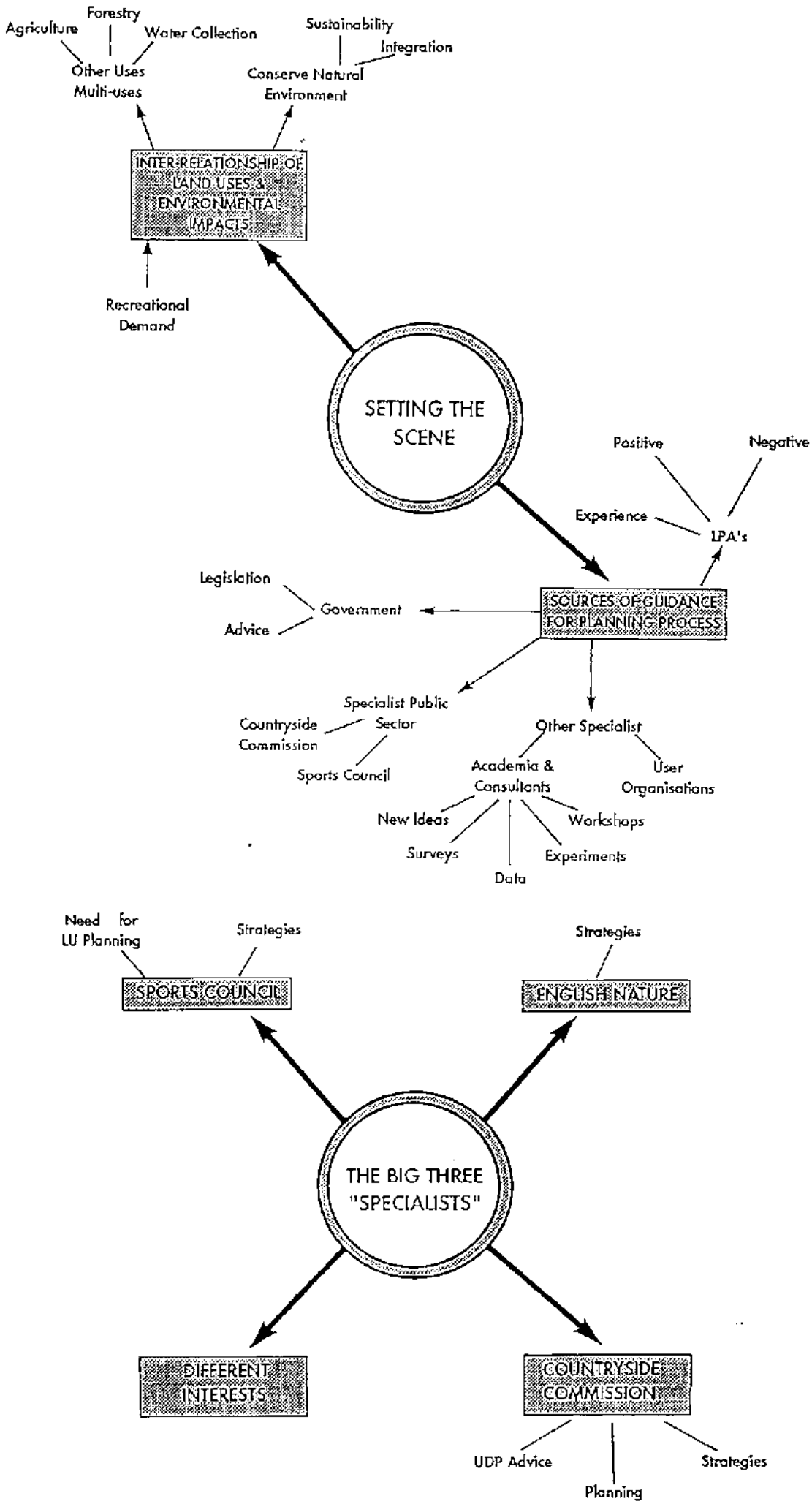
Conclusions

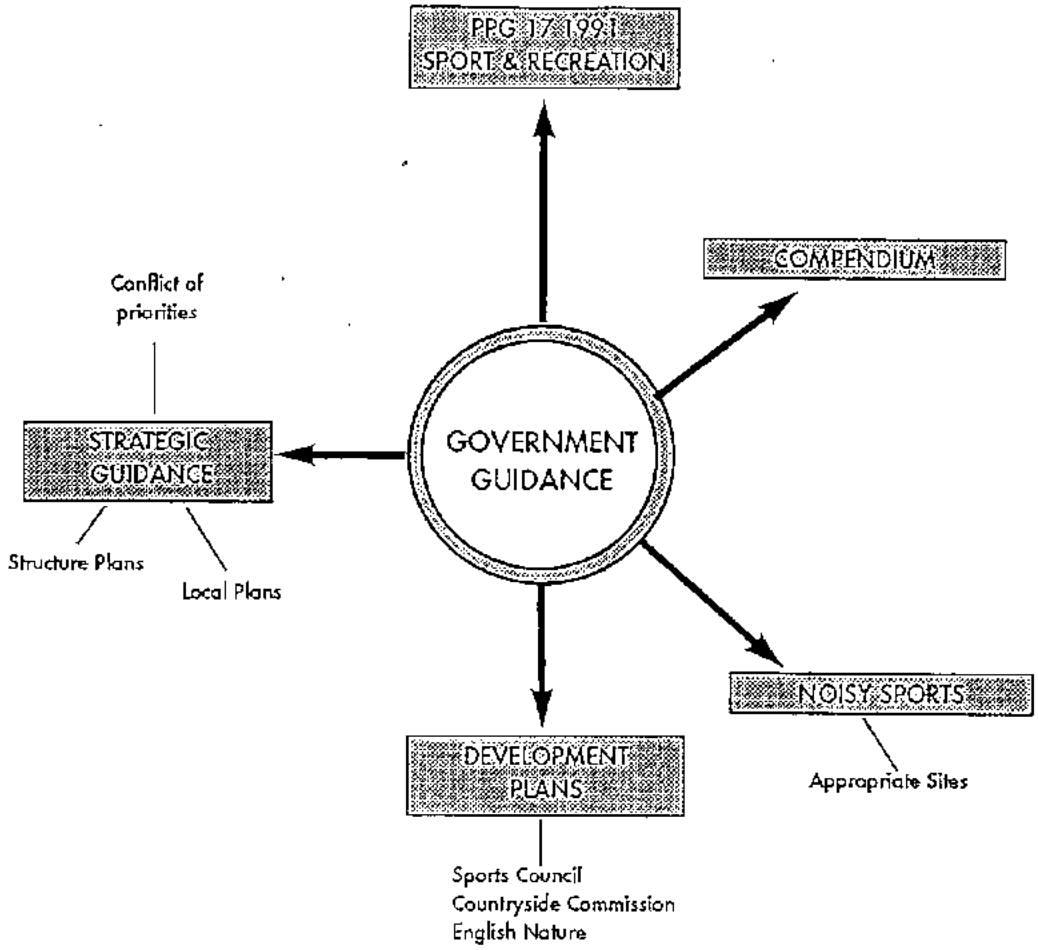
The planning process plays a central role in the determination and implementation of recreation policy, and environmental management through the medium of Local Plans and non-statutory documents such as the Project Management Plans. There are nevertheless severe limitations—primarily the planning process is land use based and as such is unable to deal with many social and environmental factors, so important in the determination of recreation policy that has to respond to changing societal needs, demands and expectations. Yet, interdependent with other processes and policies, it has a vital place, for example of recreational users, providers and managers, and managers of the natural environment. The key to future success is ensuring that the planning process reflects the need for and results of change and the increasing level of awareness by users of the impact recreation has on the environment.

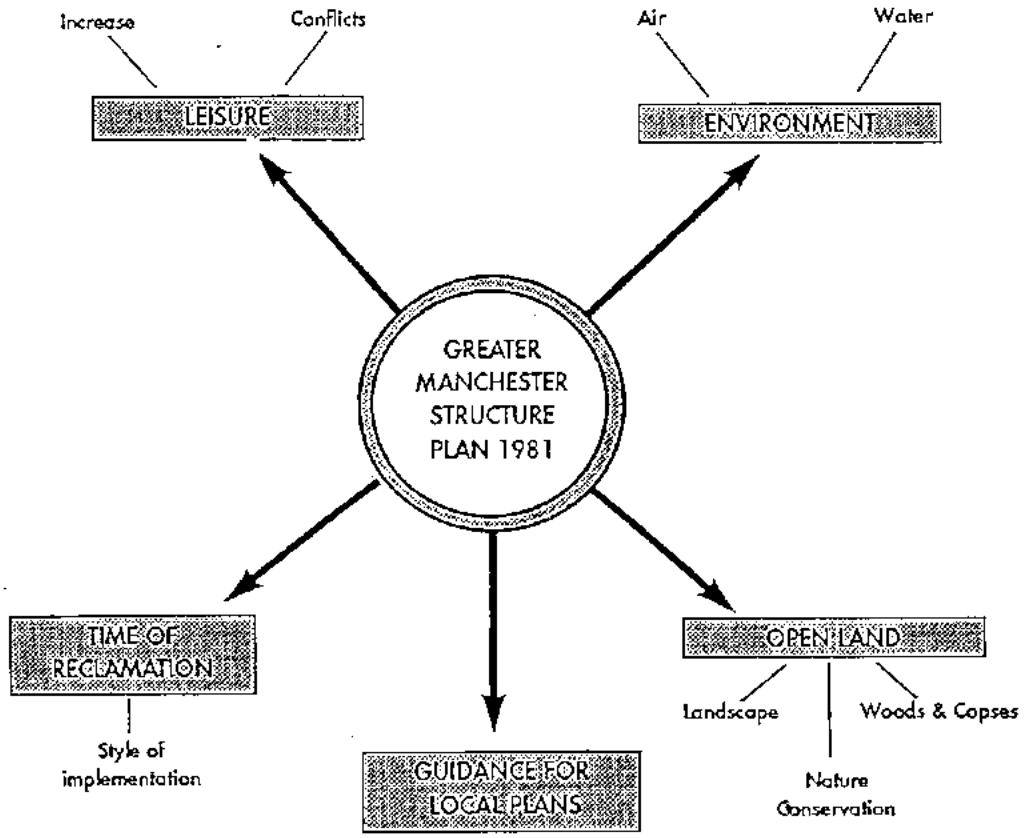
The planning process remains a matter of balance between competing interests and demands, in the contexts of changing demands and expectations as to the role of the countryside as a recreational resource. The absence of a definitive weighting between recreation and the environment is the central problem, and one which must be addressed in future through further research.

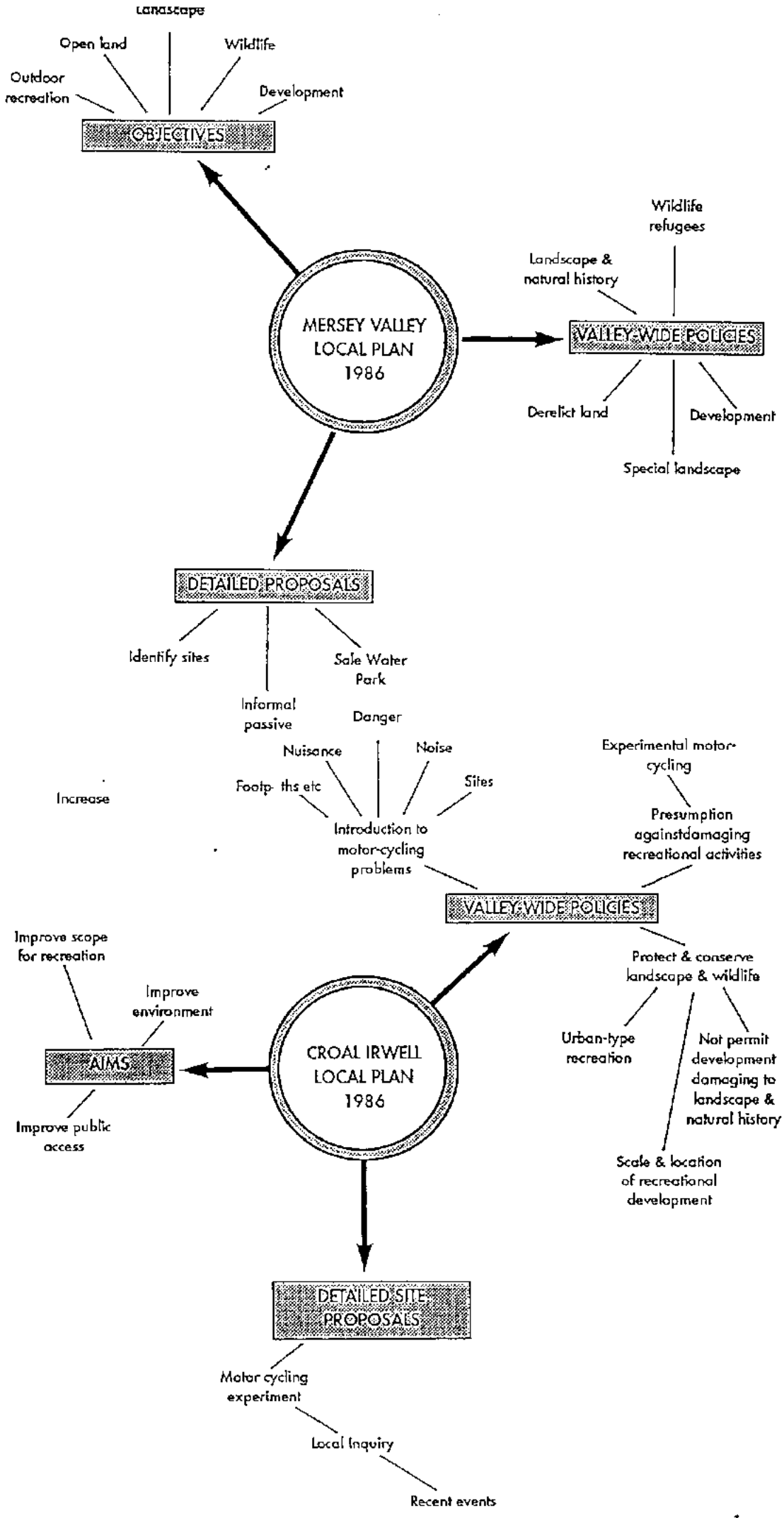

STANDING ASIDE
ROLE OF "PLANNING" PROCESS
INTRODUCTION
ILLUSTRATIONS FROM NOISY SPORTS
THEME OF BALANCE
EXPERIENCE FROM GREATER MANCHESTER

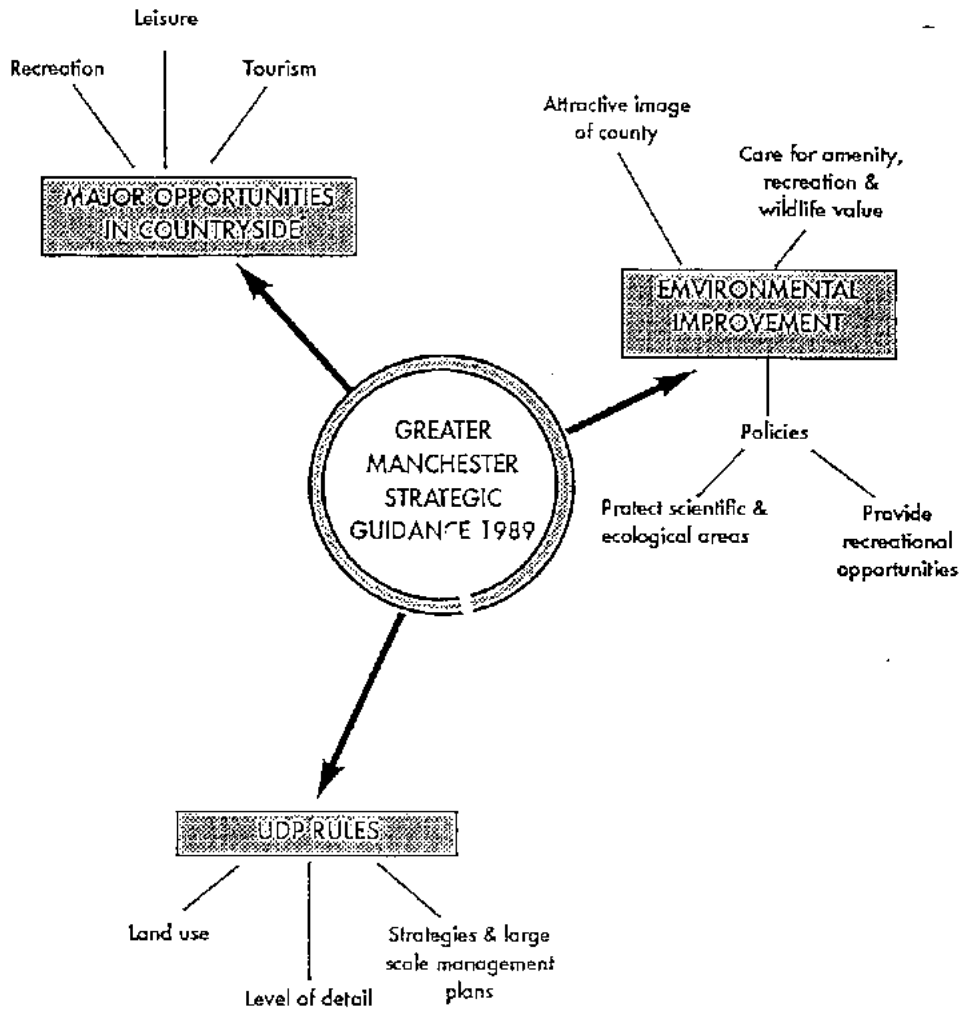

Land
Water
Plant Life
Animals
Air
Atmosphere
MEANING?
Not leave unmanaged
MANAGE?
Planning Role
THE NATURAL ENVIRONMENT
PLANNING PROCESS
Emphasis
RECREATIONAL IMPACT
Types of Recreational Activity
VULNERABILITY
Smell
Visual
Noise
Physical Pollution
Physical Damage
Psychological Disturbance

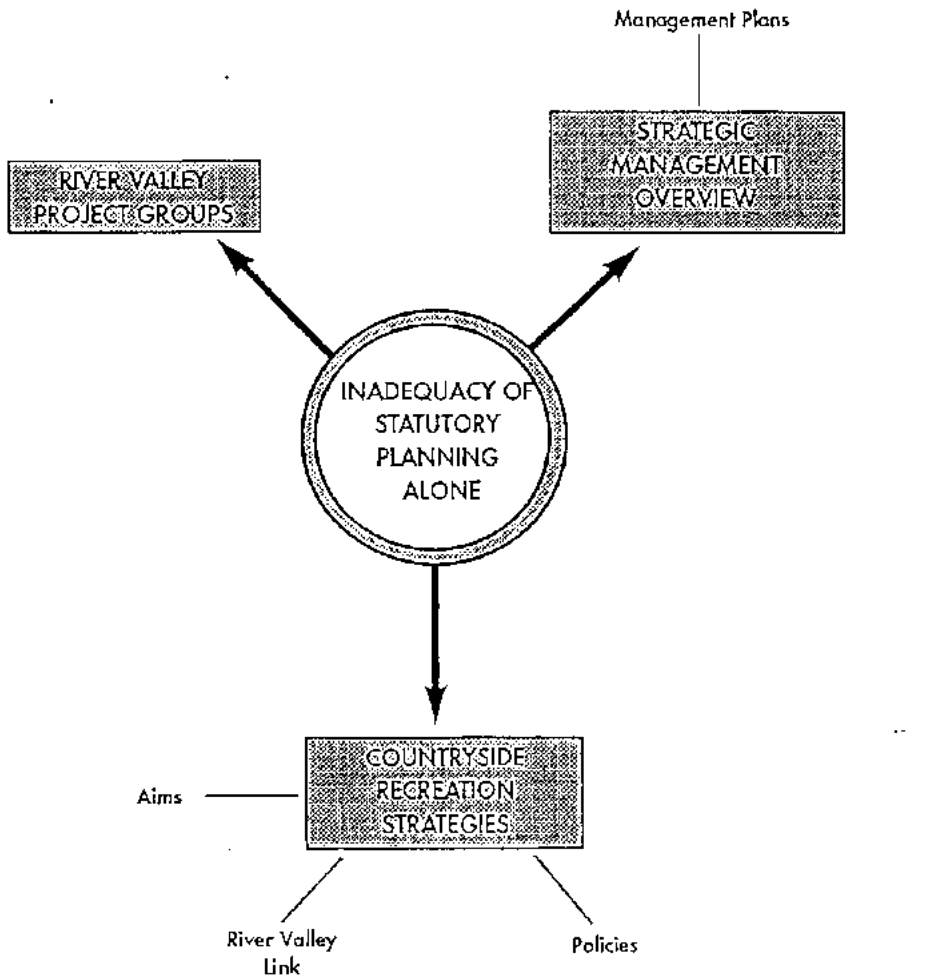

Forestry
Agriculture
Water Collection
Other Uses
Multi-uses
Sustainability
Integration
Conserve Natural
Environment
INTER-RELATIONSHIP OF LAND USES & ENVIRONMENTAL IMPACTS
Recreational
Demand
SETTING THE SCENE
Positive
Negative
Experience
LPA's
Legislation
Government
Advice
SOURCES OF GUIDANCE FOR PLANNING PROCESS
Specialist Public
Sector
Countryside
Commission
Sports Council
Other Specialist
Academia &
Consultants
User
Organisations
New Ideas
Workshops
Surveys
Experiments
Data
Need for
LU Planning
Strategies
SPORTS COUNCIL
Strategies
ENGLISH NATURE
THE BIG THREE
"SPECIALISTS"
DIFFERENT
INTERESTS
COUNTRYSIDE
COMMISSION
UDP Advice
Planning
Strategies

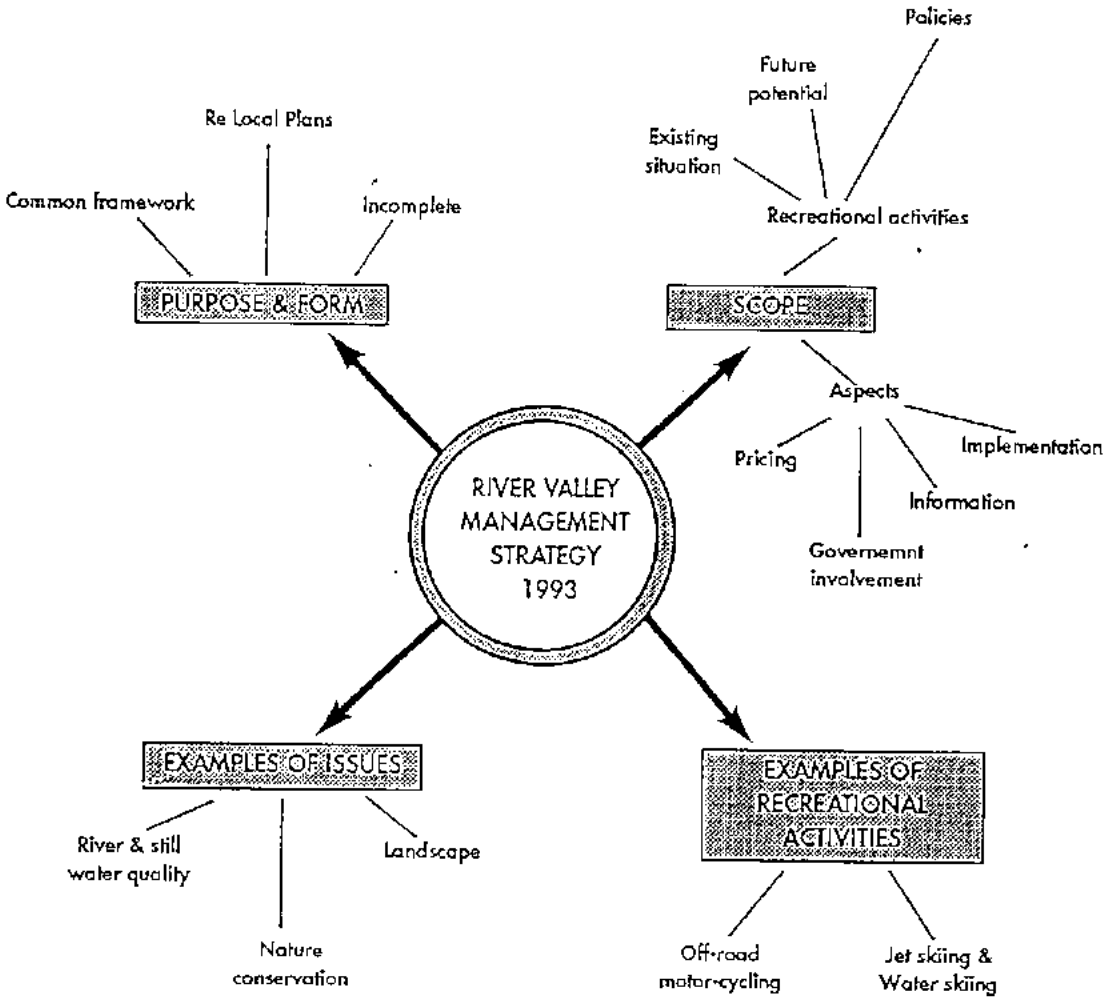

PPG 17 1991
SPORT & RECREATION
COMPENDIUM
Conflict of priorities
GOVERNMENT GUIDANCE
STRATEGIC GUIDANCE
Structure Plans
Local Plans
NOISY SPORTS
Appropriate Sites
DEVELOPMENT PLANS
Sports Council
Countryside Commission
English Nature

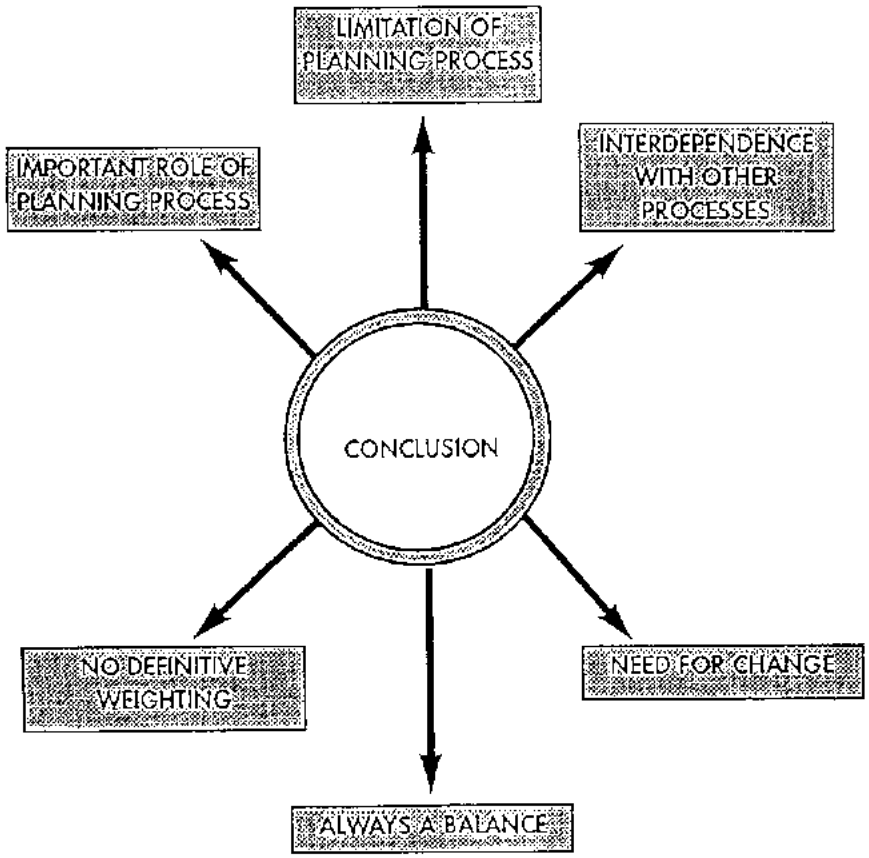

Increase
Conflicts
LEISURE
Air
Water
ENVIRONMENT
GREATER MANCHESTER STRUCTURE PLAN 1981
TIME OF RECLAMATION
Style of implementation
GUIDANCE FOR LOCAL PLANS
OPEN LAND
Landscape
Woods & Copses
Nature Conservation


Landscape
Open land
Wildlife
Outdoor recreation
Development
OBJECTIVES
MERSEY VALLEY LOCAL PLAN 1986
Wildlife refugees
Landscape & natural history
VALLEY-WIDE POLICIES
Derelict land
Development
Special landscape
DETAILED PROPOSALS
Identify sites
Sale Water Park
Informal passive
Danger
Nuisance
Noise
Footp- ths etc
Sites
Increase
Introduction to motor-cycling problems
Experimental motor-cycling
Presumption againstdamaging recreational activities
VALLEY-WIDE POLICIES
Improve scope for recreation
Improve environment
AIMS
Improve public access
CROAL IRWELL LOCAL PLAN 1986
Protect & conserve landscape & wildlife
Urban-type recreation
Not permit development damaging to landscape & natural history
Scale & location of recreational development
DETAILED SITE PROPOSALS
Motor cycling experiment
Local Inquiry
Recent events


Leisure
Recreation
Tourism
MAJOR OPPORTUNITIES IN COUNTRYSIDE
Attractive image of county
Care for amenity, recreation & wildlife value
EMVIRONMENTAL IMPROVEMENT
Policies
Protect scientific & ecological areas
Provide recreational opportunities
GREATER MANCHESTER STRATEGIC GUIDANCE 1989
UDP RULES
Land use
Level of detail
Strategies & large scale management plans


Management Plans
STRATEGIC MANAGEMENT OVERVIEW
RIVER VALLEY PROJECT GROUPS
INADEQUACY OF STATUTORY PLANNING ALONE
Aims
COUNTRYSIDE RECREATION STRATEGIES
River Valley Link
Policies


RIVER VALLEY MANAGEMENT STRATEGY 1993
PURPOSE & FORM
Re Local Plans
Common framework
Incomplete
SCOPE
Policies
Future potential
Existing situation
Recreational activities
Aspects
Pricing
Implementation
Information
Governemnt involvement
EXAMPLES OF ISSUES
River & still water quality
Landscape
Nature conservation
EXAMPLES OF RECREATIONAL ACTIVITIES
Off-road motor-cycling
Jet skiing & Water skiing


CONCLUSION
LIMITATION OF PLANNING PROCESS
IMPORTANT ROLE OF PLANNING PROCESS
INTERDEPENDENCE WITH OTHER PROCESSES
NO DEFINITIVE WEIGHTING
NEED FOR CHANGE
ALWAYS A BALANCE

Policy and Management Responses

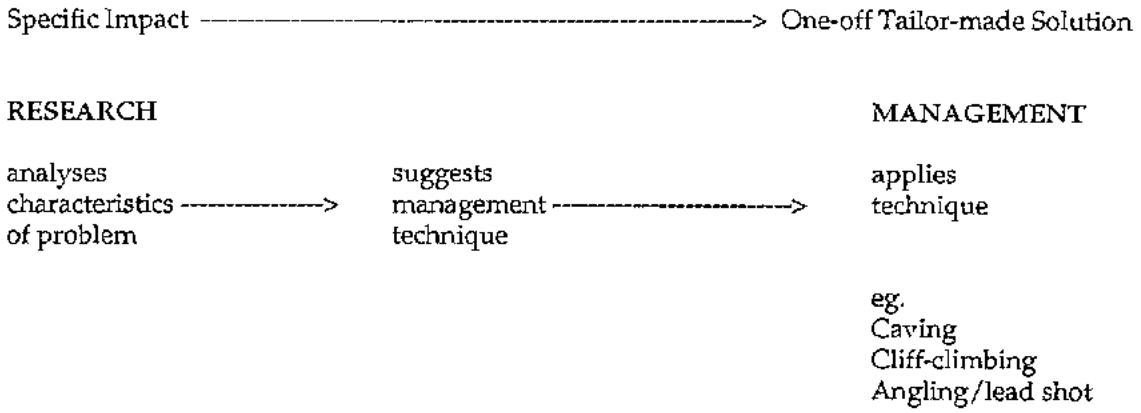
Roger Sidaway, Consultant

Management responses (figure 3) can be classified as planning which takes a preventative approach to minimising impacts; that of management which can take either a *regulatory* or *ameliorative* approach to managers and education which takes an influential approach to managers and professionals through training, advice and the dissemination of good practice. Education also takes the form of more general exhortation to the recreation participants via codes of practice and other information (see the following paper). Finally, the research approach attempts to build a sound *information base* to sustain the other approaches (see figure 4). This paper will consider this range of management responses in relation to two major topics: the impacts of damage to vegetation and disturbance to birds.

Figure 3: Management Approaches and their Impacts

Management Approach	*Impacts*		
	Damage to Vegetation	Disturbance to Birds	Pollution
Planning	Site/route selection	Site protection - reserves - zoning	Development Control of concentrated use
Management	Site/route restoration/ modification	Seasonal restriction	Water quality regulations
Education			
• public	Codes: Tread lightly	Save our sandpipers	Litter at sea
• professional	Dissemination of Advice		
Research	Development of techniques	Basic research on significance of impacts	Environmental Audit
	Demonstration schemes	Monitored Experiments	
Suggested Priorities	Demonstration schemes	Development of consensus on significance of impacts	Environmental Audit
	Monitoring and evaluation of existing work	Resources for Research	
	Evaluated trials of Limits of Acceptable Change		

Figure 4: Research and Management



Damage to Vegetation

This analysis is largely based on the review of techniques for managing the impacts of recreation on vegetation and soils by Bayfield and Aitken (1992). These authors have made a major contribution by synthesising relevant research in a practical context.

Their review of research is utilitarian in that it describes the processes whereby vegetation is lost and soils are eroded and sets out some of the underlying theoretical relationships which affect these processes. The main part of the report is concerned with the techniques of protecting soil, constructing paths, drainage, reinforcing or reinstating vegetation. At the end of each section they identify gaps in knowledge which might be filled by research or more often by field trials, demonstrations and the dissemination of existing knowledge.

They see the primary role of research as assisting in developing and applying techniques more efficiently and not in demonstrating the existence of the problem. In the words of Cole (1985), research can too often be a "documentation of the obvious" particularly when the impacts are visually self-evident.

Approaches to Managing Vegetation and Soils

Bayfield and Aitken's analysis describes the detailed approach that can be taken at each stage. In the *planning* phase emphasis is given to site and route selection to minimise impacts at the outset, although they comment on problems of "retrospectiveness" whereby managers are frequently constrained by previous decisions and repair previous mistakes. At the *management* phase the emphasis is on site or route restoration and modification, ideally providing different surfaces for different recreational users and selecting the most appropriate surface for increasing levels of use. Bayfield and Aitken are primarily concerned with professional education and the communication of good practice to managers.

Regarding *research*, Bayfield and Aitken advocate "vegetation and soil sensitivity studies" which would examine the susceptibility of different vegetation types so that rates of deterioration can be predicted for the selection of an appropriate impact management technique. They also suggest that further research is required on the effects of different types of recreational use which would also assist the selection of appropriate techniques. However, they see the main emphasis of future work concentrating on demonstrations and field trials which would develop impact management techniques in a series of integrated research and development projects. Thus their overall priorities could be summarised as demonstration schemes; the wider application of existing techniques, and a renewed emphasis on monitoring and evaluation.

Disturbance to Birds

In contrast, the state of the art on the management of the impacts of disturbance to birds are less well-developed. The understanding of the problem and its significance in conservation terms is less well-understood and also surrounded in controversy because of its potentially wide-ranging implications. Meanwhile the range of techniques that are applicable for impact management are fewer in number and of a more general nature. *Planning* approaches are concerned with identifying and protecting sites of major conservation significance and/or where these are extensive and cannot be taken into a single protective ownership by a conservation body (such as the RSPB or a wildlife trust) different uses or intensities of use are segregated by zoning them into separate areas. *Management* approaches are limited to seasonal restrictions to protect species at vulnerable periods such as breeding or moulting sessions or winter roosts for resident or migratory species. One of the most successful, that between mountaineering and conservation organisations which protects cliff-nesting sites, operates effectively on a voluntary basis. *Educational* approaches are limited to literature on the requirements of particular species such as breeding tern colonies or sandpipers in the Peak District .

In these circumstances the main purpose of *research* is to establish the significance of recreational impacts and, if possible, to suggest particularly vulnerable periods in the breeding cycle so that impact management measures can be targeted more effectively. Possible examples might be the prospecting periods during which breeding birds' territories might be left undisturbed (see figure 5) or deer calving (see figure 6).

Figure 5: Disturbance to Birds

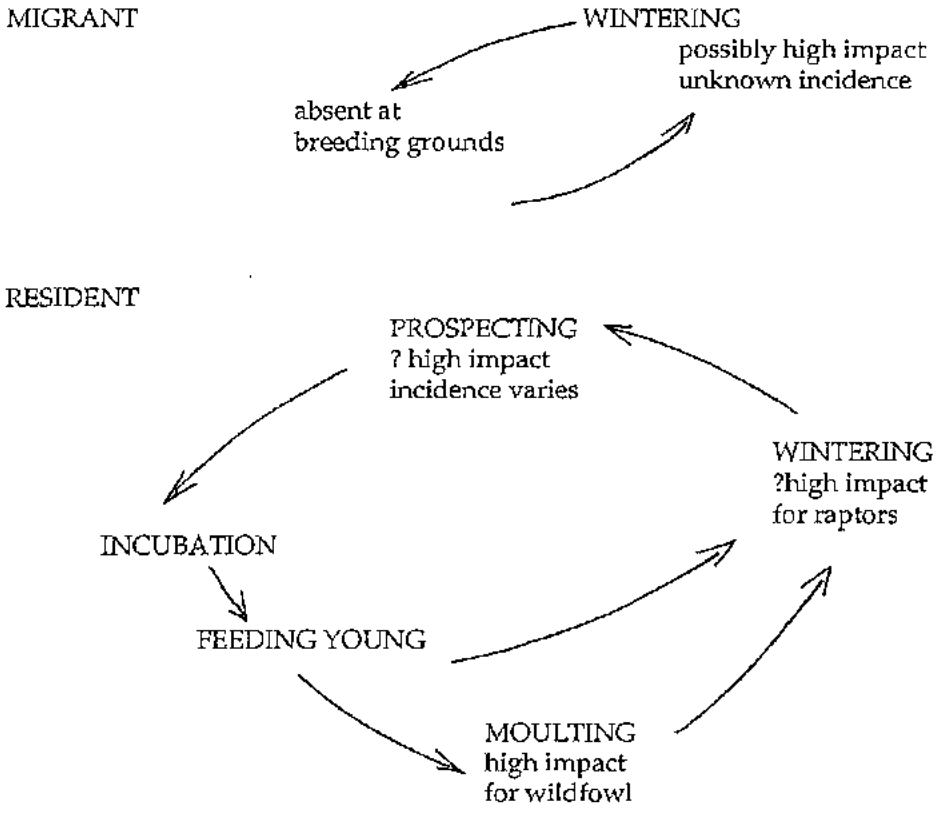
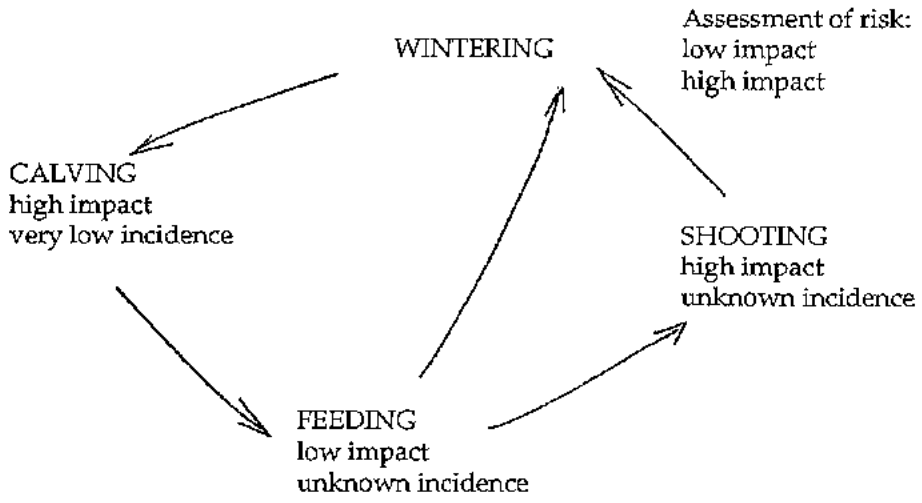


Figure 6: Disturbance to Red Deer



An initial assessment of priorities suggests that given the controversy that surrounds this topic there is a genuine need for research which would clarify the significance of recreational impacts and the need to develop consensus at a local/habitat level on the directions management should take in the short to medium term while the necessary research is being conducted (see figure 3).

Generic Research Issues

Is the Research Base on Recreational Impacts Adequate?

Should we be systematic and attempt to fill the apparent gaps or be more pragmatic and take a more problem-oriented approach only studying areas as practical needs arise?

The Accessibility of Previous Research: Do we know what is there?

The frustrations of trying to assess existing data bases do not provide easy access on the relatively well-researched impacts let alone ones which have not been studied. Given the frequency with which research reviews are conducted, there does appear to be a case for consolidating existing work on one data base and classifying it for ease of access.

The Contribution of Research: At which stage of decision-making would more research make a more effective contribution?

There is likely to be more than one answer to this question given both the nature of the impacts and the available knowledge about them.

The Application Research: How far is lack of information the problem?

The assumption is often made amongst scientists or ecologists that first priority must be given to conducting research which will provide the basis for sound management. In the more controversial situations, it may be more important for researchers and managers to develop consensus with interest groups on the nature of the problem, the lack of reliable information and the need to manage in a precautionary way.

Planning approaches such as the Limits of Acceptable Change (LAC) could be used in situations to prevent as well as manage conflicts. through involving interest groups from the outset and developing a consensus and involving all parties in a responsible approaches. The objective is to gear management and planning to manage for the quality of the environment—quality for species/habitats and users.

Issues for CRN

The following suggestions are made for steps which CRN might take to improve the present understanding of recreational impacts.

Improving Data Bases

There is an apparent need to improve the data bases of both previous research studies and studies which monitor and evaluate impact management techniques.

Dissemination of Information

The particular needs appear to be dissemination of good practice on site management and in training in practical skills.

Research Priorities

Although there is a developing consensus within the research community that the impact of recreational disturbance on birds is of low significance compared to habitat management, research might be valuable if it alleviated some of the political heat surrounding the topic.

Management Studies

Any research programme is likely to be time-consuming and costly and various approaches have to be considered including monitoring and evaluating various management initiatives. Demonstration projects and field trials would make a more practical contribution towards vegetation and soil management but these again require monitoring and evaluation. Planning approaches such as Limits of Acceptable Change are not amenable to research *per se* but again there is a need for practical demonstrations or trials which need evaluation.

In addition, there is a general need to disseminate good practice. It appears that a new initiative in this direction would be timely and that CRN might provide the necessary impetus to form a new group. However, its terms of reference and title should ensure that it encompasses both research and practice so that it encourages both applied research and development and has a practical focus.

Education and Information—a Management Tool?

Alastair Lavery, Director, Kindrogan Field Centre

Interpretation and information are frequently used as tools in encouraging the responsible use of the countryside. There are a number of opportunities, problems and limitations associated with this, however. This paper will concentrate on the use of the written word in leaflets, books and signs, but the conclusions should be transferable to other means of interpretation and information-giving such as the formal and informal spoken word, audio-visual presentations and action.

What Kind of Messages are There?

- *Education*—long term, requires depth of explanation and has often encompasses general aims.
- *Interpretation*—site specific, has specific aims and has some scope for explanation.
- *Information*—at point of use, very specific, with little chance of explanation.

There is a continuum in the above in depth and time.

What are the Messages?

Of a number of different types:

- *No Message*—why? (given up or problem solved)
- *General Statements*—Reference to Code which might be: general (eg Country Code)
  or specific (Mountain Bikes, Paintball)

Asked to list the Country Code, the majority of delegates could remember only four to six points of the 12, perhaps illustrating that responsibility is often devolved from the individual.

- *List of Prohibitions*
- *Explanations with No Guidelines*
- *Explanations with Guidelines*—eg. climbing guides which increasingly contain environmental information.

Participative Session

Using background information on a fictional Scottish Nature Reserve, delegates were asked to construct an all-embracing message to inform and educate visitors. The objective was to demonstrate how difficult it is to put across a message in a fashion that puts across a message but does not alienate visitors. Answers ranged from a suggestion to build an interpretative centre to using graphic images and phrases such as "previous visitors have left this area for you to enjoy".

Conclusions

Generally there is a low priority given to this area of recreation management, with constant reference to the Country Code. There is a crucial need for investment and in particular the need to:

- focus on specific and real environmental problems (information worth giving and receiving);
- identify target audiences to determine what you say and how you say it;
- identify the behaviour you want from the user;
- be clear about what you want. Don't confuse or lose the point in explanation and reasonableness;
- don't use interpretation and information if they clearly don't work.

Where Do We Go From Here?

Jeremy Worth, Head of Recreation and Access, Countryside Commission

The question "do we know where we are now?" must be asked. There is a need for more bearings in relation to:

- *Wildlife and Landscape*
- *On-site and Off-site Impacts* (for example energy use and road building)
- *Direct and Indirect Impacts* (for example local communities and farming systems).

There is currently little focus on landscape, off-site impacts and indirect impacts.

A number of further concepts are of particular note:

- *Assessing the significance of impacts* —accuracy
  —positive
  —negative

  eg. erosion of footpaths can show that an area is being used, but this demands an appropriate management response

  It is more difficult to decide frames of reference eg. how significant is the loss of a species? There is a need to devise criteria and checklists against which impacts can be measured.

- *Sustainablity*—problems of defining the term as a frame of reference.

- *Management*—techniques and organisation —accommodating interest groups
  —responsibility
  —timing

Policy Responses

- More facts are needed, especially if negative perceptions are to be countered, illustrated by research into the Brandon Park Orienteering Event.
- There is a need for policy impact studies, though this is often difficult when impacts are constantly changing.
- Make sense of sustainablity. This may be seen as a major threat to recreation policy if other interests (such as nature conservation) continue to lead the debate—recreation policy-makers must get involved.
- Recreation as a benefit in itself. There is a need for constant advocacy of the intangible benefits to be derived from recreation.

Policy Instruments

- *Economic Techniques* eg. taxation
- *Management* —resources
  —visitors
  —communication

The role and usefulness of economic techniques is in desperate need of research. Management techniques have only a relatively minor impact in comparison.

Symbolism

- There is an important symbolic aspect to the countryside and its use for recreation. This is part of a belief system where rational decision-making is often set aside.
- Compromise is important in attempting to accommodate differing, often competing and conflicting interests.
- Counter-intuition must be recognised, as illustrated by the Brandon Park Study.
- There is an often unstated elitism such as the traveller/tourist/tripper distinction
- A "goal-post" effect operates, which is related to cultural influence—answer the questions and find that the goal-posts have been moved as a result of changing standards.
- Recreationalists have belatedly entered the debate on impacts, responding to an agenda determined by other groups. Many of the issues have already been articulated; recreation policy-makers find themselves in a reactive role.
- There is a need for broader strategic issues—sustainability and pollution, for example—to be put onto the recreationalists' agenda in order that these are avoided being re-run in recreational impacts.
- Ultimately, recreationalists must be positive and avoid going on the defensive.

Discussion

Brian Parker (British Orienteering Federation)

People often take a site-specific view of impacts. The Brandon Park Study was commissioned as an attempt to allay fears and demonstrate that impacts are not necessarily negative—this it succeeded in doing. The Study consumed considerable BOF resources, however, and could not readily be repeated.

Pat Haynes (Midlothian District Council)

Some statutory agencies might be criticised for not wishing to encourage more visitors to the countryside on the grounds of unacceptable environmental damage. There is a need to realise that some areas may have to be "sacrificed".

Roger Orgill (Sports Council)

This has in fact been done for some time.

Craig McGarvey (National Rivers Authority)

The NRA are about to embark upon research into such impacts and are concerned about the paucity of information on the impact of recreation on wildlife.

Bill Wright (British Mountaineering Council)

More facts, based on partial research, used by particular interest groups can place organisations such as the BMC in a defensive position.

The impacts of recreation as a whole are minor in comparison with agriculture, road building and quarrying, for example. Why is there apparently little or no research into the deleterious effects, on a countrywide basis, of these and other activities such as forestry?

Research should not be undertaken for the sake of it; there is a need to think about objectives.

Juliet Vickery (Scottish Natural Heritage)

SNH is ranking recreation on a par with nature conservation. This acknowledges that recreation can often be unfairly criticised and placed in opposition to nature conservation where this doesn't necessarily have to be so.

Mark Owen (Yorkshire Dales National Park)

There is a need for more facts to convince ourselves that recreation isn't a problem let alone special interest groups.

Olivia Mellors (National Rivers Authority)

Considerable prejudice must be overcome and a need for research into the perceptions of the public and special interest groups is needed to better understand the reasons for and routes to the defusing of damaging prejudice. New or alternative activities immediately meet opposition demanding research into perceptions and values to complement more mainstream research into impacts on vegetation and wildlife.

Roger Sidaway (Consultant)

A case-study approach to research along the lines of the 1988 review of mountain biking completed for the Sports Council should be adopted, illustrating the possibility of different forms of, and approaches to, research.

There is the danger of recreation and conservation issues becoming polarised, perhaps emanating from false perceptions. Where do these emanate from? Negative impacts definitely do take place, but there is a need for a broad agreement and further study of real management problems.

John Nash (Lake District National Park)

Recreation is in danger of being seen as the "problem"; recreationalists can be their own worst enemy, defining a problem when there may not be one.

Bill Wright (British Mountaineering Council)

Conservation bodies are confronting recreationalists outlining what they see as problems. This points to a need to work together at an earlier stage to avoid and mitigate potential conflicts.

Roger Orgill

Conclusions

- There is a great deal of consensus as to the challenges facing recreation in terms of research and policy making and implementation.
- Recreation must thus be promoted as beneficial in itself and not merely an adjunct to other countryside activities.
- Education is vital, and documents such as the Countryside Fact File Series published by the Sports Council help, but there is a more general need for resources to be put into the development of information and interpretation.
- There is a need to mix formal and informal approaches to education—it is too easy to be trapped into an academic approach.
- Co-operation is vital between recreationalists and those parties wishing to preserve their particular interests and between organisations with common interests. The Sports Council for Wales and the Merthyr and Cynon Groundwork Trust, for example, are currently embarking upon a collaborative project.
- Recreation cannot be detached from social changes, in particular greater and more sophisticated environmental awareness; this has implications for the topics researched and the way in which that research is carried out.
- Similarly, in addition to the scientific realm, the more esoteric elements of the countryside must be recognised—"landscape temples" and "sacred spaces". To "tourists, trippers and travellers" could be added "pilgrims".
- The problems of conflict and the need to secure compromise are illustrated by the story of the Duke of Edinburgh asking why his grouse shooting had been interrupted. "By a group of youngsters walking as part of their Duke of Edinburgh's award scheme" was the reply.

Workshop Participants

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Mike Ingham
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Mel Jones
Sheffield Hallam University

Penny Kemp
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