

ORIENTEERING WORLD



IOF

**At one
with nature**

No. 1

2000

INTERNATIONAL ORIENTEERING FEDERATION

 **FINNAIR**

 **SUUNTO**



worldsport • com TM

WorldSport Mail 

Your membership card to
the sporting community

register now for your
free mail service at

www.orienteering.worldsport.com

the official home of
orienteering on the
internet

CONTACTS

Published by: International Orienteering Federation (IOF), Radiokatu 20, FI-00093 SLU, FINLAND, Tel. +358 9 3481 3112, fax +358 9 3481 3113, e-mail: info@iof.worldsport.org, home page: <http://www.orienteering.worldsport.com>

Editor-in-chief and Advertising:
Barbro Rönnerberg, Secretary General, IOF, e-mail: bronnberg@iof.worldsport.org

Editor:
Nina Vanhatalo, e-mail: Nina.Vanhatalo@ssl.fi

Layout and cover:
H&P Visualis

Editing and translation services:
Scantran, Iain Rochford
Tel: +44 1275 818 537, e-mail: scantran@easynet.co.uk

Printer:
Alprint, PL 255, FI-33101 Tampere, Finland

Contributors to this edition:
Erik Borg, Colin Kirk, Erkki Laitinen, Brian Parker, Iain Rochford, Clas Thor.

Subscription agents:
Australia: The Australian Orienteer, P.O. Box 294, Black Rock, ACT 3193, Australia, e-mail: Kathy.Liley@dse.vic.gov.au AUD 30 (air mail) or AUD 23 (surface mail)

Czech Republic: H.S.H. Sport, Gorazdova 5, 120 00 Praha 2, Czech Republic. CZK 490 (* CZK 645)

Denmark: Birthe Helms, Gravbaekvej 4B, Virklund, DK-8600 Silkeborg, Denmark. DKK 100 (* DKK 130)

Finland: Kyösti Saksman, Worldwide Compass Oy, PL 84, 01601 Vantaa, Finland. FIM 80 (* FIM 105)

France: Marcel Ponroy, 9 Rue Cais de Gilette, 06300 Nice, France. FRF 88 (* FRF 115)

Germany: Endre Kövari, Am Esch 18, D-32312 Lübbecke, Germany, e-mail: Amigogeneral@t-online.de DEM 26 (* DEM 34)

Ireland: John McCullough, 9 Arran Road, Drumcondra, Dublin 9, Ireland, e-mail: jmccio@iol.ie IEP 10 (* IEP 14)

Italy: Gabriele Viale, Via Cori, 4, 36040 Alonte Vi, Italy, e-mail: sport-service@interplanet.it ITL 26,000 (* ITL 34,000)

Korea: Oh Jung-hwan, 1574-26 Shillim 11-Dong, Kwanak-Ku, Seoul, Korea 151 021. KRW 24,500 (air mail) or KRW 19,000 (surface mail)

Netherlands: Gerrit van de Riet, Het Binneveld 10, 5491 ZD Sint-Oedenrode, Netherlands. NLG 30 (* NLG 39)

New Zealand: Les Warren, P.O. Box 145, Morrinsville, New Zealand. NZD 36 (air mail) or NZD 28 (surface mail)

Portugal: Higino Esteves, Apartado 2, 2640 Mafra, Portugal, e-mail: fpo@mail.telepac.pt PTE 2,700 (* PTE 3,500)

Spain: Mapa & Brujula, Parla 2, 28991 Torrejon de la Calzada, Madrid, Spain, e-mail: mapaybrujula@meridian.es ESP 2,500 (* ESP 2,950)

Sweden: IOF, Swedish postal giro no. 84263-3. SEK 117 (* SEK 153)

U.K.: Pages Editorial & Publishing Services, Ballencreeff Cottage, Ballencreeff Toll, Bathgate, West Lothian EH48 4LD, Great Britain, e-mail: pages@clara.net GBP 9 (* GBP 11.50)

U.S.A.: Sidney Sachs, 6212 Thomas Drive, Springfield, VA 22150-1220, USA, e-mail: sachs@axsamer.org USD 19 (air mail) or USD 14.50.

* air mail outside Europe

CONTENTS

- 4 Editorial
- 4 Rio statement on sport and sustainable development
- 5 Orienteering can do its bit
- 6 Environment – the third pillar of the Olympic Movement
- 8 Studies agree: Orienteering is an environmentally-sensitive sport
- 10 Brigitte Wolf makes conscious decisions
- 12 Environmental work at the Swedish O-ringen continues
- 14 A Canadian perspective
- 16 Co-operation WWF Finland–WOC2001
- 17 Orienteering on nature's terms
- 20 The Goulds: an environmental family
- 22 Education raises awareness
- 25 The IOF Environmental Group
- 26 Foot Orienteering:
The prospects for the World Cup 2000
- 27 Ski Orienteering:
Busy year for the ski orienteers
- 28 MTB Orienteering: *The 1999 World Cup*
- 29 Trail Orienteering: *A different choice*
- 31 News in brief
- 31 Results
- 34 IOF member federations

PUBLICATION NOTES

Orienteering World is the official journal of the International Orienteering Federation IOF. Permission from the Editor should be sought prior to reproduction of articles or photographs.

ISSN 1015-4965. Next issue: 2000/2, 3 November.

Subscriptions (2 issues yearly): Europe and all surface mail - EUR 13.50, FIM 80, Air mail outside Europe - EUR 18, FIM 105.

Subscriptions to: IOF, Radiokatu 20, FI-00093 SLU, FINLAND or to one of the subscription agents.

Front cover: Orienteering requires no permanent buildings. Natural terrain is the sports stadium and the orienteers, here represented by the Norwegian Vidar Solberg, are keenly interested in environmental protection. Photo: Erik Borg.



The main point on the programme of the third IOC World Conference on Sport and the Environment held in Rio de

Janeiro last November was the study and the adoption of Agenda 21 for the Olympic Movement.

Because of the universality of sport, the members of the Olympic Movement, and thus also the sport of orienteering, can play an active role in promoting the environment in connection with sports activities.

Orienteering is well suited to be one of the forerunners in this respect. As few other sports, orienteering offers people the opportunity to get out into the natural environment, to feel safe in it, to appreciate the value of it and to become more responsible for protecting it.

The 1998 IOF Congress adopted an environmental policy stating that international orienteering shall integrate the protection of the environment in its philosophy and activities. To secure the implementation of the policy the national federations were urged to prepare environmental good practice guidelines and to integrate sustainable development into their policies and activities.

Agenda 21 is aimed at the members of the Olympic Movement and anyone in sport who shares its values. Orienteering can contribute to the successful implementation of the action programme and thereby to the sustainable development of our planet. Which other sport could be a better instrument for awareness-raising, education and training in environmental protection? Orienteering could have a key role to play in this programme – let's not refuse to take it.

Barbro Rönnerberg

Rio statement on sport and sustainable development

In October 1999, the International Olympic Committee organised the 3rd World Conference on Sport and the Environment in Rio de Janeiro, Brazil. Some 300 people attended the Conference, among them the IOF President Sue Harvey. The statement below on sport and sustainable development was adopted by the Conference.

1. The Olympic Movement's Agenda 21 is an instrument setting out the general actions needed in the fields in which the Olympic Movement can bring an effective contribution to sustainable development.
2. All the members of the Olympic Movement, and all participants in sport and enterprises associated with sport, should be invited to comply with the recommendations of the present Agenda 21 to the best of their ability and with due respect for their cultures, traditions and beliefs.
3. All members of the Olympic Movement should be urged to integrate sustainable development into their policies and activities, based on the above Agenda 21; they should also encourage all individuals who are associated with them to behave in such a way as to ensure that their sporting activities and their lifestyles play a part in sustainable development.
4. The Olympic Movement's Agenda 21 should be implemented in a manner respecting the different social, economic, geographical, climatic, cultural and religious contexts which are characteristic of the diversity of the members of the Olympic Movement.
5. Particular emphasis should be placed on awareness-raising, education and training in environmental protection.
6. Athletes, considering their popularity and influence among youth

in particular, should be encouraged to contribute to the promotion of environmental education and training. Similarly, the media should be called upon to support these efforts.

7. The implementation of the Agenda 21 should be conducted within a policy of close collaboration between members of the Olympic Movement and the United Nations Environment Programme (UNEP) as well as all other governmental and non-governmental, national and international entities pursuing the same objective.

8. The main responsibility for the promotion and updating of the Olympic Movement's Agenda 21 shall be entrusted to the IOC Sport and Environment Commission. All members of the Olympic Movement as well as other concerned entities should give adequate support, in all areas, to the Commission to help it in its task.

9. The IOC Sport and Environment Commission and the United Nations Environment Programme should establish a joint Working Group to provide policy advice and guidance on and to monitor the implementation of the Olympic Movement's Agenda 21.

10. The joint Working Group should prepare detailed progress reports on the implementation of Olympic Movement's Agenda 21 to be presented at the main meetings of the members of the Olympic Movement and at the future IOC World Conferences on Sport and the Environment.

Orienteering can do its bit

SUE HARVEY,
IOF PRESIDENT

In broad terms, people do sport for a number of main reasons: fun, health, competition/challenge, and (for a few) money. Some argue that the international federation is concerned only with the third of these, and only on an international level. I would argue otherwise.

Every competition, national or international, depends entirely on a vast army of volunteers. That broad base is made up of people who orienteer for fun, for health, as well as for competition. This broad base also feeds the stream of future champions.

Either way, the IOF has an interest in ensuring that orienteering appeals to a broad range of people and is widely available. To achieve this, we need to appeal to both genders, all races, and most economic strata, i.e. we must be socially inclusive.

There is another reason to be socially inclusive: civil authorities in many developed countries increasingly look to sport to assist with maintaining a healthy lifestyle.

Orienteering is the ideal whole body and mind sport: a cardiovascular workout, general body strength training, mental stimulation and skill development – all in the fresh air and without the need to build a billion dollar stadium.

It is one of the roles of the IOF to make sure orienteering has this image, and that these facts are well known. Government funding is usually linked to achieving government objectives.

It is of interest to orienteering world-wide to capitalise on the special health benefits of the sport so that we can tap into available funding.

This healthy stimulating activity of orienteering, is ideally enjoyed in forest/woods/bush. So the orienteer naturally has an interest in making

sure tracts of forest remain for us to play in.

As global warming continues, we face the possibility of low areas being more frequently flooded and powerful storms flattening our forests.

We, as orienteers, have a special interest, therefore, in environmental responsibility, and we ourselves can act directly, in supporting the work being done by others to pull back the speed at which global warming increases.

We can also do our bit both within orienteering and in our lives in general to Reduce, Re-use, Re-cycle. These are key actions urged upon all sports federations by the IOC's Global Conference on Environment and Sport which I attended in Rio de Janeiro in November 1999.

This leads one to question our reliance on the private car to get to orienteering events.

The car is socially exclusive (excluding those who can't afford one) and exhaust emissions contribute directly to global warming. All possibilities to reduce this reliance should be supported.

Except in the heat of the toughest competition, orienteers get much joy from the natural environment through which we run.

The variety of these surroundings (and biodiversity in general) is important to us. This is yet another reason for supporting all aspects of environmental responsibility, and also why we must continue to co-operate closely with conservation bodies and to take measures to avoid damage by having closed seasons and safe areas.

Equally as important as doing these things, is to be seen to be doing them. For the sake of recruitment, for funding



and for our Olympic ambitions, the IOF and the national federations must work to protect orienteering's reputation for environmental responsibility.

Much of the work will always be done at grass roots level by clubs, and at country level by national federations. What the IOF can contribute is:

- to encourage exchange of good practice between federations through articles, conferences etc.
- to maintain competition rules that prevent bad practice
- to encourage orienteers to be involved in environmental issues
- to learn from other sports and non-sporting bodies
- to publicise our efforts and our record, and hence protect and enhance orienteering's image as a socially and environmentally responsible sport.

Helping sport contribute to sustainable development

— SUMMARY OF THE OLYMPIC MOVEMENT'S AGENDA 21

By ELINA SAVOLAINEN

For some years the Olympic Movement has regarded the environment as a third pillar of the Olympic Movement along with sport and culture. In the context of Agenda 21 the environmental protection policy is placed in the broader context of sustainable development.

The starting point is the idea that long-term protection of environment will be possible only if combined simultaneously with economic, social and political development.

The concept for Agenda 21 was adopted in 1992 during the United Nation's conference on environment and in general its implementation is the responsibility of governments.

However, at the same time, other international, regional, sub-regional as well as non-governmental organisations were called upon to contribute to the same effort and this was seen as a good opportunity for the world of sport to bring an important contribution to the promotion of sustainable development.

As a consequence, the Olympic Movement adopted its Agenda 21 with the aim of encouraging the sports community to play an active role in the sustainable development of our planet.

Agenda 21 — Action programme

In order to achieve the general objective of helping sport to contribute to sustainable development, the Olympic Movement has created the Agenda 21 action programme which is built around three different objectives.

These objectives are improving socio-economic conditions, the conservation and management of resources for sustainable development, and

strengthening the role of major groups.

It was also stated that Agenda 21 should be implemented in a manner which would respect the different social, economic, geographical, climatic, cultural and religious contexts.

Therefore it is essential that the action programme can offer ways to promote sustainable development at different levels i.e. actions for individuals as well as actions for the governing bodies of sport.

All participants in sport, the IOC, the International Federations, the National Olympic Committees as well as the enterprises associated with sports should integrate sustainable development into their policies and activities. The individual level is also mentioned, as individuals themselves are encouraged to behave in such a way that their sporting activities and lifestyles play a part in sustainable development.

Improving the socio-economic conditions – one of the objectives

The socio-economic aspect emphasises issues such as international co-operation projects for sustainable development, new consumer habits and sports infrastructure that would be adapted to social needs.

At major events organisers should pay to attention, for example, to the involvement of the local population and the design of accommodation for local housing strategies. Good environmental practise involves re-use of facilities wherever applicable.

Health protection is seen as an essential factor of the harmonious

development and therefore sport organisations are encouraged to implement sport education programmes where health education will be an integral part.

Environmental awareness in the events and among the major groups

The agenda places emphasis on that all the action should be promoted in the spirit of sustainable development and with respect for the environment.

For example, when building a sport facility or planning a large-scale event the following issues should be taken into account: protection of conservation areas and countryside, environment-friendly equipment, non-polluting means of transport, reducing energy consumption when possible and minimising waste.

Environmental principles can be seen in architecture, design, landscaping and restoration. Environmental impact assessments should be conducted after events.

The role of major groups needs to be strengthened. The Olympic Movement emphasises the role of young people and women.

Awareness-raising, education and training in environmental protection play an important role. Considering the popularity and influence of athletes among youth, it is a great opportunity for athletes to contribute to the promotion of environmental education. In a similar way media should be encouraged to support these efforts.

The IOC sees that the Olympic Games will be held in conditions that show a responsible concern for environmental issues. Therefore there are

environmental requirements for candidate cities for the Olympic Games and environmental measures are important in the choice of the host city.

An active attitude towards the promotion of sustainable development

IOC and UNEP (United Nations Environment Programme) have set up a joint working group in order to follow up the implementation and the progress of the Olympic Movement's Agenda 21.

A proactive attitude is essential. The IOC President, Juan Antonio Samaranch, wishes to broaden this campaign to reach all elements of the world of sport, particularly the International Federations and the National Olympic Committees.

In the long run the environmentally-sound actions should go beyond the Olympic Games themselves and should reach the sports community at large. Agenda 21 and the Action programme in particular should provide tools with which to identify environmental issues related to the practise of sport, and every sport whatever its size should be able to implement actions at its own level.

Bibliography:

International Olympic Committee,
Sport and Environment Commission
1999 : Olympic Movement's Agenda 21,
Helping sport contribute to
sustainable development

International Olympic Committee,
Highlights of the week , week 43
<http://iis1.us.olympic.org/ioc/e/news/highlights/hl%5F393%5Fe.html>

President Juan Antonio Samaranch
speaks about the Environment
http://iis1.us.olympic.org/ioc/e/org/enviro/enviro_samaranch_.html

Environmental Requirements for
Candidate Cities
http://iis1.us.olympic.org/ioc/e/org/enviro/enviro_candireq_e.html

PHOTO: KEITH SAMUELSSON



An environmentally-sensitive sport

BY BRIAN PARKER

Orienteering is not an environmentally damaging sport. Its impact is low and often negligible, particularly when compared with natural pressures on terrain.

These are the conclusions that may be drawn from a number of scientific studies of the environmental impact of orienteering. They also accord with the day-to-day and year-on-year experience of orienteers themselves, many of whom have professional expertise in environmental matters.

This is not to claim that orienteering has no effect at all, but it is important to distinguish between disturbance and damage, and between transient and long-term effects.

A bird that flies from its nest on the passing of an orienteer but returns to continue incubating its eggs is disturbed not damaged. Deer who run from a competition area but are found back there a day or so later are disturbed not damaged.

The marks of passage through vegetation that orienteers might leave in the vicinity of some control points but which have vanished within a growing season are transient effects which amount to disturbance rather than damage.

The IOF Environmental Group is currently assembling a database of all reports and observations on the environmental impact of orienteering, irrespective of whether or not the conclusions are favourable to the sport.

The orienteers themselves have long indicated that, were the sport found to be damaging in any respect, then they would insist on making the necessary changes to eliminate any such damage.

Of the assembled reports, the most highly prized are the rigorously conducted studies. These are few in

number and, so far, are all of European origin, perhaps not surprising as these are the countries with the more conflicting pressures between conservation and the use of land for recreational purposes. Three of the more important reports are briefly summarised here.

A four-year study of vegetation impact and recovery was made by researchers from the University of Bielefeld and reported in 1989¹. The orienteering event examined was the German University Championships with about 250 competitor runs. The team reported no severe damage; any soil disturbance was superficial and damaged plants soon regenerated.

Reported in the same year was a study by a researcher from Southampton University². This monitored a larger event of some 1200 competitors in the New Forest in the south of England.

The total distance covered by the competitors was 9300km. Overall there was low impact. Some localised vegetation damage occurred but was similar in intensity from the ponies and deer, and orders of magnitude less than that caused by horse riders following the Deer Hunt. Deer disturbed by the orienteering event recovered fully in a short time.

An impressive study of the effect of an orienteering event on breeding birds was conducted in the east of England in 1991³. The area was mostly coniferous plantation but with clear sections containing ground-nesting birds.

Together with the birds nesting in the trees, there was a total of 54 bird species. Monitoring of the bird population before and after the event, using three different rigorous techniques of observation, showed no measurable disturbance caused by the 500 competitors who took part.

The position with regard to future

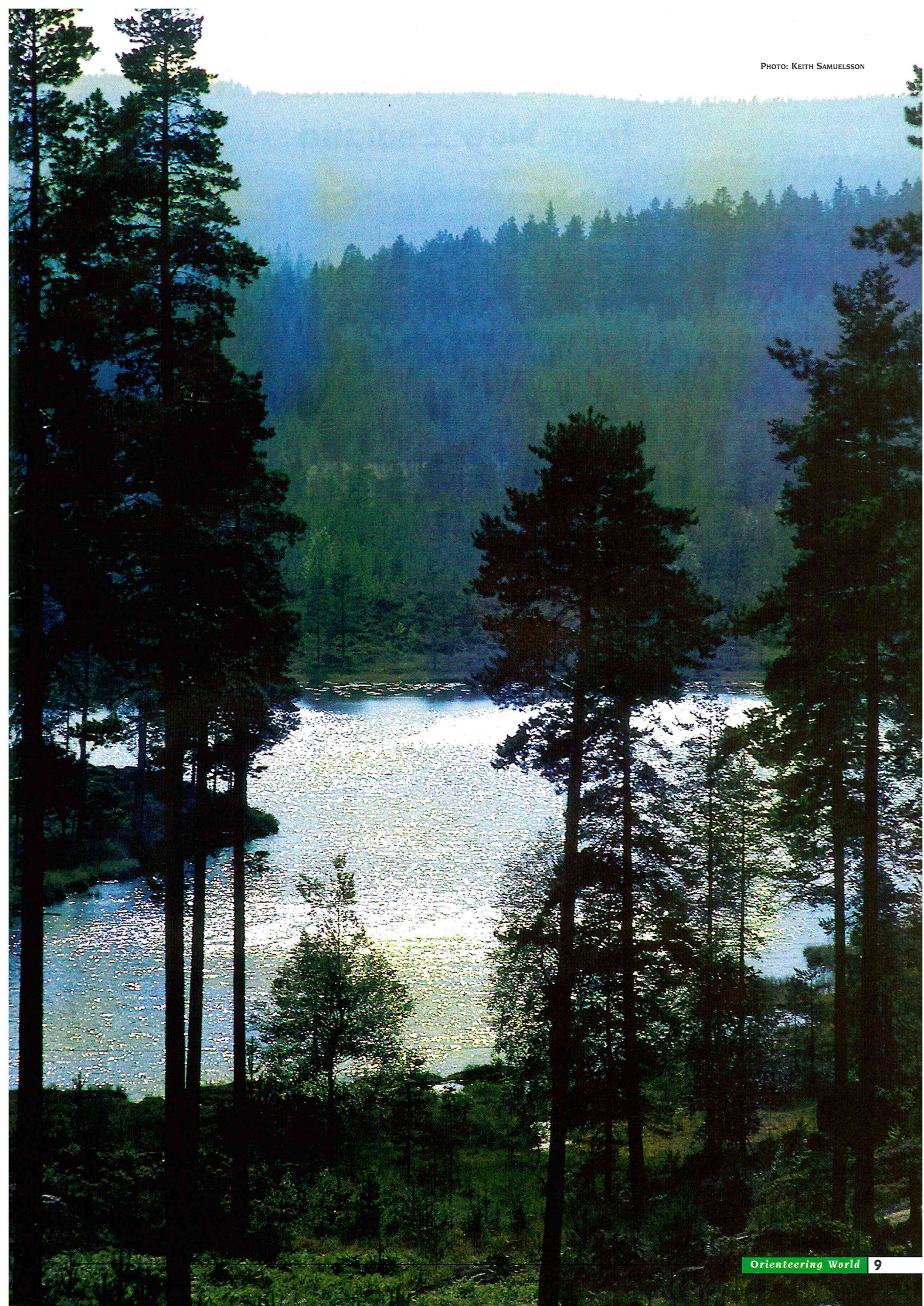
important research to enhance that already reported is a confused mixture of science and eco-politics.

Some ecologists accept that sufficient positive evidence is on the table to permit the general presumption that orienteering is non-damaging. Others argue that all habitats and ecosystems are different and may have different levels of sensitivity. Conservation officers holding this latter view tend to be less enthusiastic about the value of research and may veto a research proposal in case it causes damage. Notwithstanding these difficulties, research opportunities do arise from time to time and our knowledge base is steadily increasing.

Our expectation is that the accumulating scientific data on the environmental effect of orienteering, coupled with good practice in the way in which orienteering events are conducted, will continue to confirm that the sport is indeed environmentally-sensitive.

References:

1. Breckle et al., *Vegetation Impact by Orienteering*, Sci. J. Orienteering 1989/5.
2. Douglas, *Assessment of the Impact of the November Classic Badge Event 1988 on the New Forest*, British Ecological Society et al. 1989.
3. Ecosurveys Ltd, *The Effect of the May 1991 Orienteering Event on the Breeding Bird Community in Brandon Park*, BOF 1991.



Brigitte Wolf will not eat kiwi fruit from New Zealand

BY ERIK BORG

It's not that Brigitte does not like kiwi fruit from New Zealand, just that she doesn't eat them out of concern for the environment since they are transported such a long distance thus using up valuable resources and increasing pollution.

– My environmental goals? I hope that future generations will also be able to exist on this planet of ours, and I try to make decisions which are best for the environment, says Brigitte.

The Swiss elite runner does not consider herself to be an environmental extremist, but the bronze medallist from WOC 97 in Norway does make very conscious decisions.

- As long as it does not take far too long, she will not travel by plane or car to orienteering races, but will try to use alternative means of transport instead.

- She consciously uses public transport.

- She does not travel a long way for leisure purposes; she tries to enjoy herself in her local environment.

- She chooses to buy kiwi fruit from Switzerland's neighbouring countries instead of kiwi fruit from New Zealand.

Nor does she buy apples from South Africa as they will also have undergone a very energy-demanding transport route to get to Switzerland. She tries to concentrate on buying food which is produced locally.

- She pays a 'penalty tax' to the World Wildlife Fund every time she travels by air. Over the last couple of years this will have amounted to around USD 600.

- Last year she did not take part in the final round of the Park World Tour in China.

The main reason was the long plane journey from Europe. Travelling by train would have taken far too long, but this year she will take part in the World Cup there as it is so important

in her orienteering career. The Park World Tour, though, could be dropped for environmental reasons.

She is a trained biologist and works as both a biologist and a journalist in addition to concentrating fully on international elite orienteering.

She is also the president of the WWF's regional organisation where she lives and has been a member of the Environmental Group of the Swiss Orienteering Federation for the last three years.

– We must have an interest in looking after the environment, but I don't think orienteers are any more environmentally conscious than most people, she says.

Not all marshes may be mapped

As in many countries, the sport of orienteering has experienced a few conflicts with hunting groups and environmental organisations in Switzerland too.



The natural environment is not damaged even by a big orienteering event.

PHOTO: KEITH SAMUELSSON

When races are organised or a new map is produced, consideration is given to the flora and fauna. If, for example, there is a special marsh which is particularly worth of preservation in the area, the terrain to be mapped may exclude this area or it may be marked on the map as a prohibited area.

In some places maps have not been resurveyed during recent years because the area contains a very rare and threatened species of bird in these areas.

– But the natural environment is not damaged by orienteering activity. Any temporary damage is soon repaired. The problem is all the traffic to and from the o-races by car, adds Brigitte.

In Switzerland the situation is such that it must be possible to travel to all national o-races by public transport. If it is more than two kilometres from the nearest bus stop or train station, the organisers will organise a special bus service from there to the race.

Brigitte estimates that somewhere between 20 and 40 per cent of orienteers opt to travel on public transport to Swiss o-races.

– Today, the price of fuel does not have much effect on people's use of the car. The taxes on fuel should at least cover the whole cost. The tax on petrol is a fair tax as those who use the car most should pay most. Much of today's use of the car is unnecessary.

– It is often possible use a bike to do small errands. Travelling 50–100 km to another town to dine out is not necessary either. You can dine out in your home town instead. The price of petrol should be increased so that it covers all the environmental costs which car use entails. Today, for example, many more children suffer from asthma, comments Brigitte.

Hardly ever drives

Don't you use a car then?

– Yes, on occasions I may use my boyfriend's car to get to some training sessions, but not really otherwise. In

Switzerland the public transport facilities are so good, even to and from the smallest villages.

How much should petrol cost?

– It ought to be so high that people think twice before they start their car. On the other hand I would abolish the present fuel tax. I don't want the current tax which just goes towards financing road construction. We don't need any more roads, states Brigitte.

A few weeks ago the Swiss voted on whether it should be a political objective to cut the use of the car by half. 20 per cent voted in favour. Brigitte had hoped for many more

votes so that the politicians would have received a clear signal which they would then have to take very seriously.

– We must make changes, if only small steps at a time. We must not least be better at utilising solar energy and cease using nuclear energy and other forms of energy which cause pollution. We cannot continue to use more energy than we recycle, says the Swiss orienteer.

Brigitte is determined to be the best in World Cup and championship races, but is also very conscious of the fact that future generations must have a world in which to live.



The Swiss elite orienteer Brigitte Wolf makes very environmentally conscious decisions. She pays for example a 'penalty tax' to the World Wildlife Fund every time she travels to the competitions by air.

PHOTO: ERIK BORG



Recycling is one of the four main objectives set by the organiser of the Swedish 5-day orienteering event, O-ringen.

PHOTO: PER NYLANDER

Environmental work at the Swedish O-Ringen continues

BY CLAS THOR

Each year the Swedish 5-day orienteering event, O-Ringen, gathers 15 000–20 000 competitors. In spite of the high number of participants, the event has always been able to serve as a model from an environmental perspective for sports organisations.

When the O-Ringen is organised this July in the Närke region in the middle of Sweden, strong efforts will have been made to enable the event to live up to the high standards already set, according to Klas-Olof Jansson, the person responsible for environmental issues at this year's event.

In order to put what he means into definite terms he mentions as a concrete example the approximate 60 000 safety pins which were used last summer and which were partially collected in on the last day.

– Seven kilos of the earth's resources are used to produce just one kilo of

safety pins for the race numbers. The collection of the safety pins was an "A-ha" experience for many orienteers.

Think what a lot of things can be done. We must develop our ideas further, comments Klas-Olof.



Providing public transportation to the event centres is one way of minimizing emissions.

PHOTO: PER NYLANDER

Four key terms

In the organisation of this year's O-Ringen the environmental work has been organised according to four objectives or key terms: recycling, reclamation, reprocessing and landfilling. An important catalyst in the environmental work is the "Keep Sweden Clean" foundation.

– We are aiming to gain the foundation's environmental diploma. If we manage to do this, we can call ourselves an "environmentally-approved event."

The example of the safety pins is one example of recycling. Another is the gravel which is laid down on the roads on the central campsite. This is "leased" and will be used as far as possible by the landowner when all the competitors have gone home.

A third example is the fresh water pipes which are used to supply the water for example at the pre-starts, and to all the participants who are staying on the campsite in Hallsberg.

– We have contacted various manufacturers and asked them if they have any surplus damaged stock. If the response has been positive, we have been able to obtain them and have then cut and repaired them so that they can be reused. Otherwise they would just have been thrown away.

Minimising disposable material

As yet a fourth example Klas-Olof Jansson mentions that, as in previous years, the aim is to minimise the use of disposable materials.

– This is made easier in that we will be able to organise catering in the school's dining-halls. The separation at source of waste is important in this context.

– The aim is that this shall be done in full and be easily handled and that we shall have an integrated policy, although the individual races are organised in different local authority areas which may use different waste service contractors.

The source segregation of waste – as the other environmental initiatives – is viewed by the environmental group as an idea which the participants can take home with them after the event in line with our motto: Our responsibility applies not just to this summer, but also to the future as well.

Reprocessing to the natural environment

The third objective for the event's environmental work is to reprocess as much as possible to the natural environment, without needing to use the fourth stage – landfilling.

– We will provide soap and shampoo which is biodegradable for the orienteers to use in the post-race showers. We can then allow the water from the showers at the individual stage venues to run-off in the environment. "Preheated" lake water will be used at two of the days in order

to save resources required in providing hot water.

With regard to transport, it will not be possible as in previous years to take the train from the event centre/campsite to several of the individual stages.

Two of the stages can though be reached on foot and bus transport will be provided for the other three.

– Our most difficult task will be to ensure that everything works at the individual stages and at the event centre/campsite.

– A lot of work will be needed before the summer. Then we will just have to ensure during the event that we and the participants together can attain the goals we have set and are able to maintain O-Ringen's reputation as a model within the sporting world.



Two of the events can be reached on foot or on bicycles.

PHOTO: PER NYLANDER

Land access and environmental issues – a Canadian perspective

By COLIN KIRK

Many people consider Canada an orienteering paradise – a huge country with vast areas of natural forests, lakes and mountains. This is not the case. Most of the land is unsuitable for orienteering; inaccessible by road and in remote regions far from the orienteering community.

The major cities of Vancouver, Calgary, Winnipeg, Hamilton, Toronto, Ottawa and Montreal are located in an east-west corridor just north of the USA border. Over ninety percent of the population, including most of the orienteers, live in this corridor.

Natural disasters

In February 1997, large areas of Eastern Ontario and West Quebec suffered severe damage from one of the worst ice storms in region history. Hundreds of electricity pylons were toppled by the volume of ice, leaving thousands of homes without power for many days. It was estimated that over a million trees were crushed under the weight of the ice.

The Gatineau Park, a huge wilderness area near Ottawa, was devastated by the storm. Easy access, numerous parking areas and well-marked trails make the park a paradise for hikers, cyclists, mountain bikers, skiers and orienteers.

Eight areas have been mapped and are regularly used for orienteering meets. The storm destroyed four of the areas and two others have reduced use. Teams with bulldozers could not accomplish as much destruction in a month as the storm did in 2 days.

Clean-up operations got underway a few months later. Work crews cleared main trails, re-routed other trails, opened new trails and removed trees in danger of falling. Some trails were left to revert back to nature. Many trees near trails were felled for safety

reasons. If orienteering event organisers cut a few bushes they would be severely criticised and future use of the area would be jeopardised.

The storm was unavoidable, but puts into perspective the minimal damage from orienteering activities relative to that of 'natural disasters'.

Partners in nature with natural differences

Orienteering and environmentalists have a common bond in protecting the environment. For orienteering it is gaining and maintaining permission to access outdoor areas as arenas in which to practice the sport we love. For environmentalists it is the love of the environment itself that provides passion to their efforts.

Although they have a common bond in protecting the environment, they are very different in other ways.

Environmental campaigns attract media and government attention to a degree orienteering can only dream of.

The orienteering community is very passive, perhaps even nervous, of lobbying government agencies. Environmental groups, perhaps following the "squeaky wheel gets the oil" philosophy, aggressively voice their concerns and proposed solutions.

Establishing strong co-operative relationships with environmental groups will benefit orienteering and enhance our image as caring users and protectors of the environment.

Study report greatly assists

A study, "Vegetation Damage in connection with Orienteering Competitions", by Lars Kardell of the Swedish College of Forestry, has been of great benefit to the Canadian Orienteering Federation in discussions with property managers, conservation authorities and environmental groups.

Scientific documentation carries a great deal of weight with environmental groups. The IOF Environment Group should encourage further research projects on the impact of orienteering competitions on the environment. Consideration should be given to projects with different environmental conditions.

Public versus private landowners

The majority of our orienteering competitions are held in national parks, provincial parks, conservation areas, and to a lesser degree, privately-owned lands.

Parks and Conservation Areas

Advantages

- ✱ easier to deal with one landowner than several
- ✱ good access roads and parking areas
- ✱ toilets/washrooms/garbage facilities available

Disadvantages

- ✱ bureaucratic policies
- ✱ permission withdrawal for unrelated orienteering problems
- ✱ frustrations with over-zealous environmental/conservation bodies

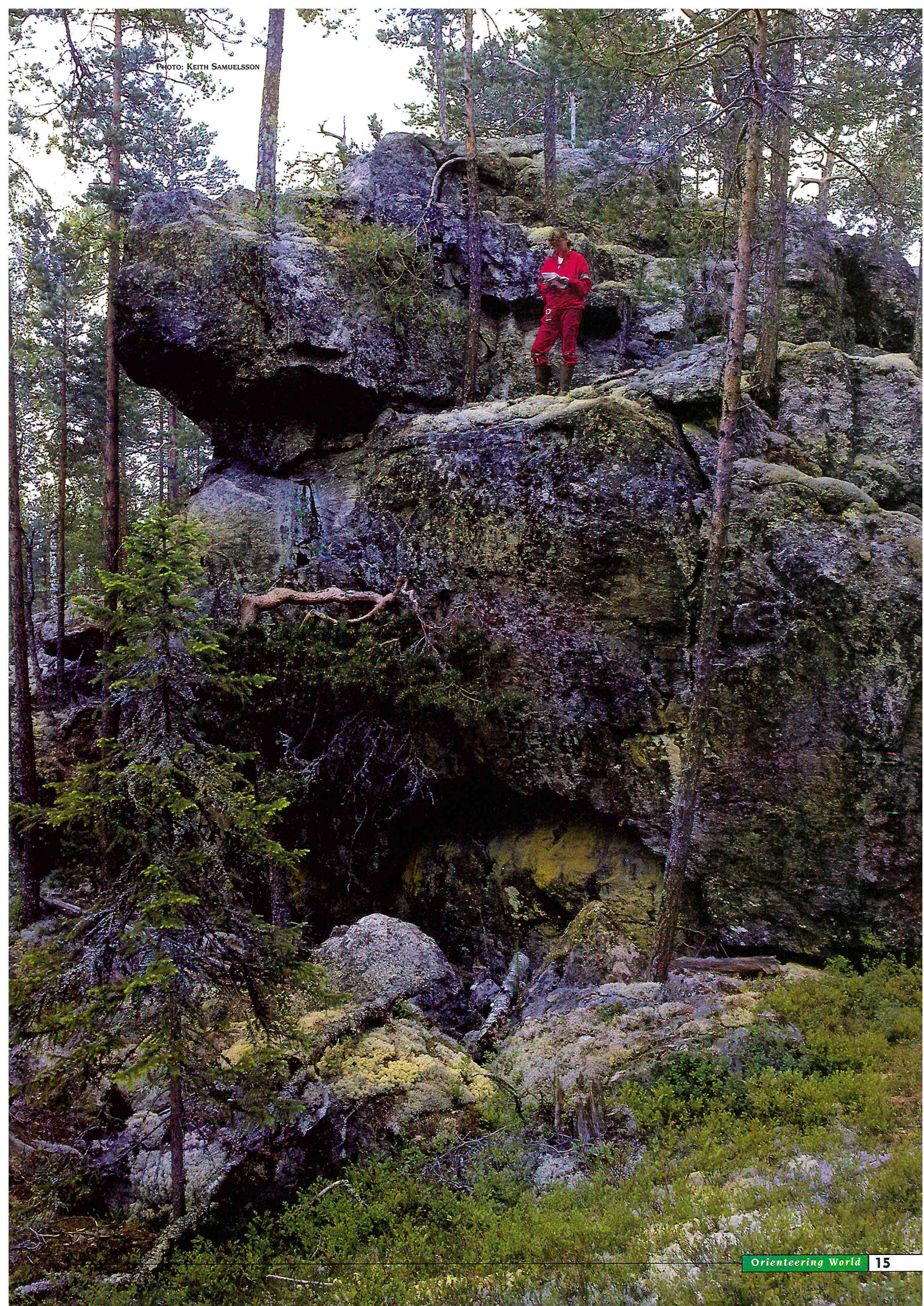
Private landowners

Advantages

- ✱ less bureaucratic than public/government agencies
- ✱ personal contact – more people-oriented
- ✱ less environmental restrictions

Disadvantages

- ✱ sometimes difficult access to event locations
- ✱ lack of toilets/washrooms/garbage facilities
- ✱ ownership change may affect permission
- ✱ multiple landowners increases negotiation efforts



WWF Finland accepted the orienteers' "gift to the earth"

BY NINA VANHATALO

– From our point of view, everybody ought to be an orienteer, claims Timo Tanninen, the Secretary General of the World Wildlife Foundation, WWF Finland.

– In order to be able to really care about the natural environment, you have to have some personal experiences to relate to. By taking part in orienteering and experiencing forests, woods and mountains and the wonderful nature around us, people are able to get closer to nature and realise that it is a unique resource which must be preserved for future generations, continues Timo Tanninen.

The policy of the WWF is to work for the interests of nature and the environment in co-operation with various parties, mainly companies and firms. At the same time the organising committee of the World Orienteering Championships (WOC) in 2001 is planning to organise the world's most environmentally-friendly sports event in Finland.

It is no wonder therefore that WWF Finland and the WOC 2001 Organising Committee have found common interests to share.

As a result, the two parties, the Finnish Orienteering Federation and WWF Finland, signed a co-operation agreement last year which focuses on developing environmentally sound practises for the organisation of orienteering competitions, and educating orienteers about the protection of flora, fauna and the environment. The culmination will be the actual WOC 2001 itself and the environmental programme in connection with it. Although the field of sports constitutes a new area of co-operation for WWF Finland, Tanninen does not believe there are many major differences compared with its other partners.

– The only major difference is that normally these kinds of agreements with companies are also fundraising opportunities for us. With orienteering or with sports in general, that is not the case. This is more a case of idealistic work, says Tanninen.

Running through the woods is not the problem

The actual co-operation will mainly take the form of consultation. In order to be able to organise the world's most environmentally-friendly sports event, the Finnish organising committee has involved many different parties in the committee work in order to utilise their expertise, and WWF has been consulted in the planning of the WOC 2001 environmental programme since the very early stages.

– We have the overview of how we as human beings have an impact on nature and the environment. We have knowledge of the overall picture, such as for example how driving a car can affect even the smallest of insects. This is what we can contribute, Tanninen explains.

Timo Tanninen emphasises that the competition itself, that is the actual competitors running through the forest, is not a threat to the natural environment, not even from WWF's point of view. With the special course planner's maps and with the careful consultations with many other parties, such as landowners, hunting groups, environmentalists, etc. the interests of the flora and fauna have already been taken into consideration as much as possible.

– The main concern is in respect to the peripheral factors such as the event centre. How is all the accommodation, catering, waste disposal and vehicle traffic going to be organised? These are the main questions to be answered, adds Tanninen.

That is why the WOC 2001 environmental programme concentrates on the protection of natural environment, reduction of material consumption and amount of waste, and on minimising energy consumption and emissions. In addition to the above, education of both WOC participants and the spectators will also be an element of the environmental programme.

– Education is also one of the ways in which we work and it is very important to us because our children and subsequent generations will be the rescuers of the globe.

Living Planet Campaign not yet ready for sports

The idea was to be able to include this co-operation with the Finnish parties also into the international WWF's programme called the Living Planet Campaign.

– In this campaign we ask that the different companies and enterprises make a contribution in the form of so called "gifts to the earth". This means for example that a company promises to reduce its emissions by 10 per cent.

However, Timo Tanninen explains that this kind of promise is rather more quantified and long-term than the kind of sports event such as WOC2001 is able to make. Which is the reason why the international WWF did not consider it appropriate to include WOC 2001 in the campaign.

– We at WWF Finland, on the other hand, thought that this kind of co-operation would be ideal for us. We consider this as a national, Finnish "gift to the earth". We were proud to allow our logo to be used for this purpose – to organise the world's most environmentally-friendly sports event, concludes Timo Tanninen, the Secretary General of WWF Finland.

Orienteering on nature's terms

BY ERKKA LAININEN

An organised outdoor event, such as an orienteering competition requires the landowner's permission for the use of the land. To ensure the possibility of being able to use the land in the future, the organisers must develop good relationships with all the interest groups associated with the competition

A course planner's map will act as a tool to facilitate taking into account all the various needs of the landowners, hunting groups, authorities and environmentalists when designing the courses for an orienteering competition. It can also be a useful aid in building mutual trust and confidence with the interest groups.

The idea of the course planner's map is to record information about the prohibited and sensitive areas in a particular competition area. The information is gathered well in advance before a course planner begins to design the courses. A good stage to do this is when surveying the competition map.

The sources of information for this map will be interest groups associated

with the competition area. The most important interest group will be the are landowners.

They may be concerned about the possible damage to their property or the area in general. The sensitive locations, such as cultivated fields, young forest plantations or game reproduction areas are recorded on the course planner's map as prohibited areas. Hunting groups, environmental authorities or environmentalists can provide more information about the game and other wildlife, and also for example about the areas of sensitive vegetation.

The designing of courses can begin when all important information is recorded on the map. The basic idea is to outline the courses so that they avoid and go around all the prohibited areas. This also applies to the possible route choices which may be taken by the orienteers during the competition. The prohibited areas are marked on the map and also, if necessary, in the terrain using tapes.

It is recommended during the wildlife reproduction season in particular, that

free zones for game and other wildlife are established. Swedish studies on the behaviour of wildlife have shown that the free zones work best when all the courses go round the zones in the same direction.

This enables an animal confronted by an orienteer to enter safely to the zone without immediately encountering any other orienteers approaching from the opposite direction.

The preparation of a course planner's map reduces the impact that a competition will have on the terrain and the landowners' property. It will also help the landowners to understand how their needs are taken into account in the organisation of the event.

The map provides a clear starting point for the planner in his/her designing of the courses. In addition to this, a course planner's map can provide landowners with useful information about their land.

A course planner's map makes a good gift to a landowner for allowing the use of his land for the orienteering competition.

Good environmental practice

— IS NOT ALWAYS AS SIMPLE AS IT SEEMS!

BY BRIAN PARKER

Example 1. It is good practice in smaller forests with deer to plan the courses in such a way that certain zones within the competition area are not visited by the orienteers. These zones, often marked on the maps as out of bounds, act as 'refuges' into which the deer move during the event. Such sanctuaries are usually thickly vegetated and of less interest for orienteering. But good practice may not be that simple. There exists one nature reserve which is overrun by deer that cause considerable damage. The

management rules of the reserve do not, however, permit deer to be shot. In desperation the conservation manager asked the local orienteering club to hold an event and to plan the courses in such a way that many of the deer would move out of the reserve onto land where hunters could operate. The orienteers found this reversal of normal practice difficult to achieve.

Example 2. It is considered good general practice not to orienteer in

game bird forests at those times of year when the birds, such as pheasant, are being reared and also during the shooting season. Orienteering at these times can disperse the birds and make it more difficult for the gamekeepers to manage them for the shoots. But good practice is not always as simple as it seems. One landowner in Shropshire, England says that orienteers can disturb his lazy pheasants at any time, the exercise doing them good and 'giving them half a chance when they come to be shot at'.



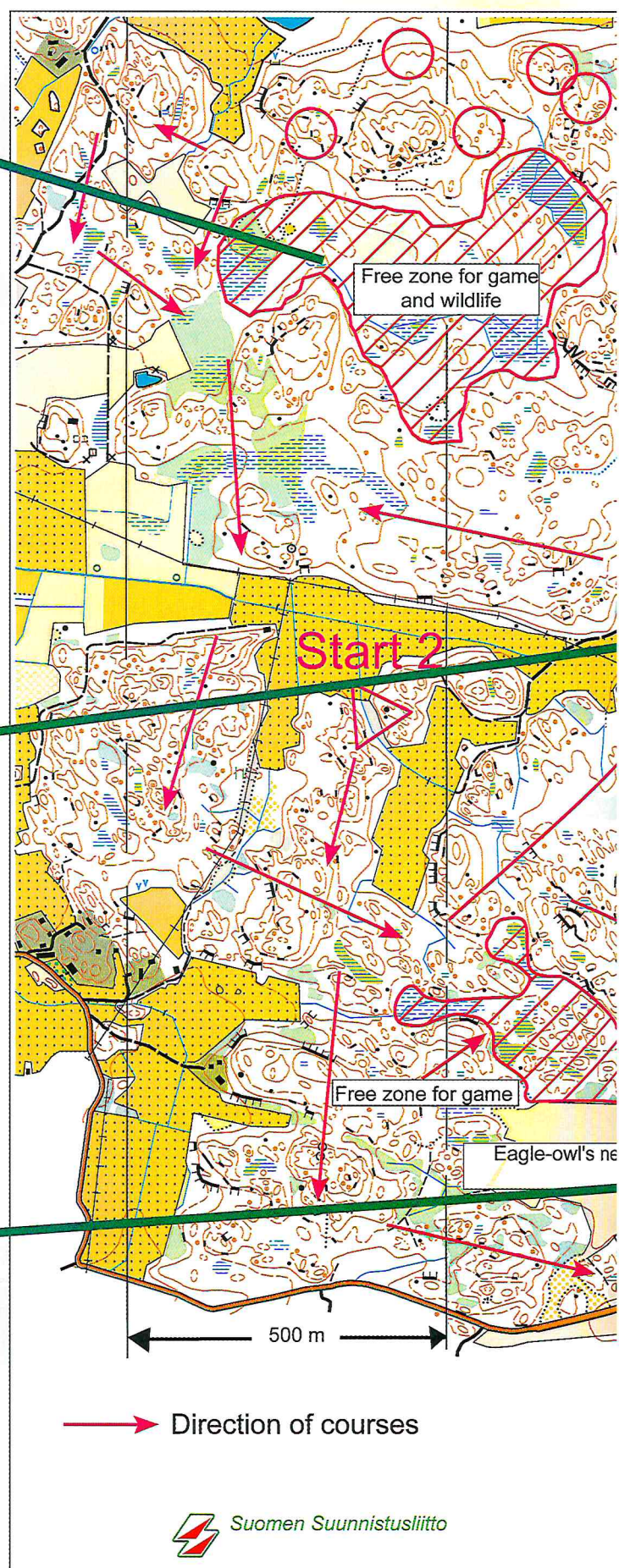
PHOTO: ILPO KOJOLA/WWF FINLAND



PHOTO: HANNU HUOVILA/FINNISH NATURE PHOTO AGENCY



PHOTO: JARI NISKANEN/FINNISH NATURE PHOTO AGENCY



anner's map

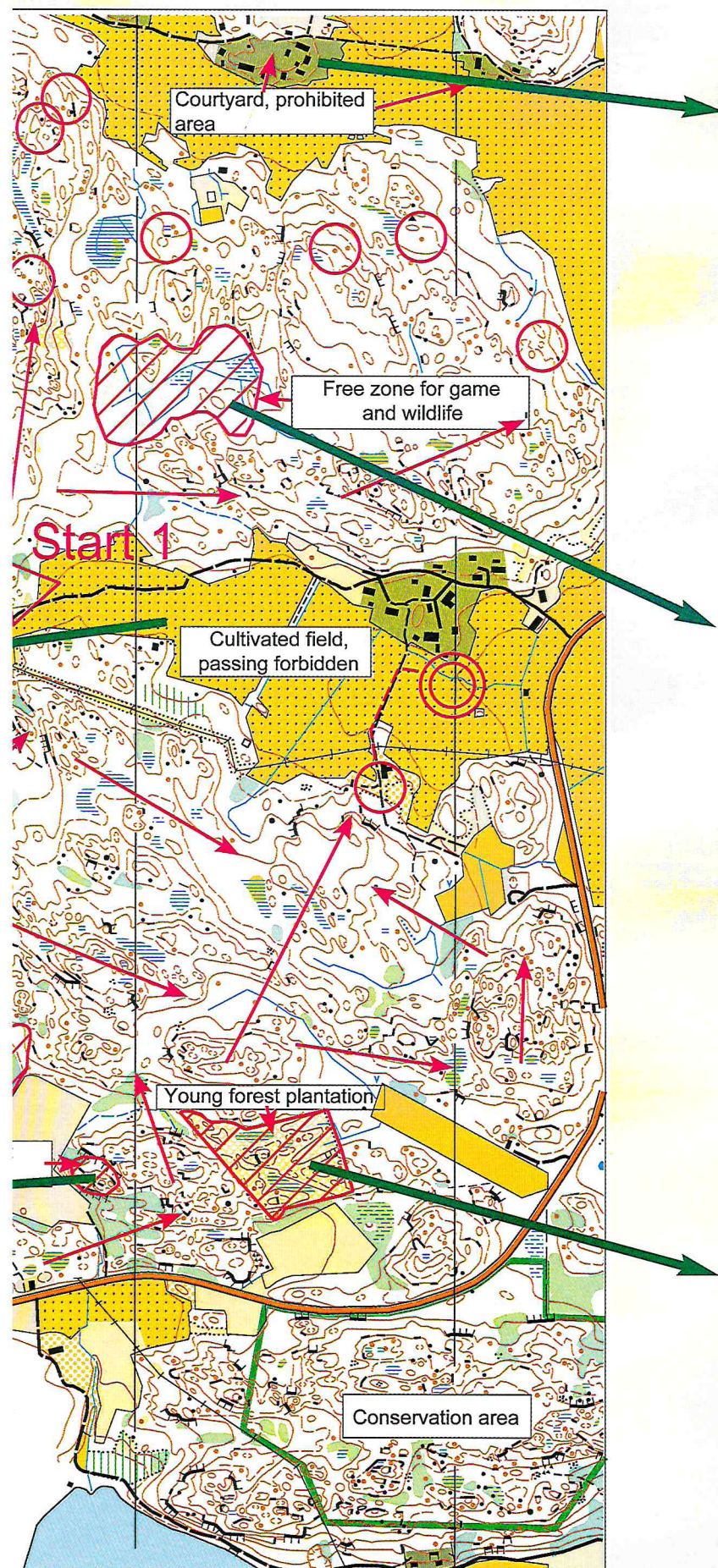


PHOTO: MAURI RAUTKARI/WWF FINLAND



PHOTO: JUHANI KOIVUSAARI/WWF FINLAND



PHOTO: K. MERILÄINEN/FINNISH NATURE PHOTO AGENCY

An environmental family finds its environmental sport

BY BRIAN PARKER/PHOTOS: KEITH SAMUELSSON AND BRIAN PARKER



I found Noel Gould sitting quietly in the March sunshine and contentedly watching the runners finishing in a regional orienteering event. He was the Planner and it was obvious from the comments of the finishers that they had found their courses to be of a high standard.

I asked him why the sport of orienteering gave him so much pleasure. He said that the underlying reasons went back a long way, some fifty years, when he was at school.

Those were the days when English schoolboys were obliged to take part in contact sports, such as football and cricket.

Noel was an unenthusiastic participant in such games. But swimming was an entirely different matter.

The swimming races were held in a river and Noel found that competing in a natural environment was a far better activity than being on the receiving end of a fast moving cricket ball.

The years rolled by. Noel went on to teacher-training college where he met Geraldine. They married and went to live and raise a family in the small Devon town of South Brent, under the granite mass of Dartmoor.

As the children grew up, they developed the same attitudes to life as their parents, ever courteous to others and with an empathy for the natural environment. But they lacked participation in a competitive physical activity which matched their aspirations.

Then the eldest child, Athena, at the age of 16, discovered orienteering. She liked the sport and its people. She encouraged her family to come and try it. The family immediately took to orienteering 'as ducks take to water'. It was their ideal sport, a testing of mind and body in the fresh air and in the countryside.

The two boys, Caleb and Sigmund, soon became proficient, improving to the point of being chosen for national teams. Sigmund went on to be a member of the GBR senior squad. Caleb became a major official, he is one of the very few licensed IOF Controllers for trail orienteering.

Not to be outdone, their two younger sisters,

Immalee and Frankie, also made representative teams. And so has the youngest member of the family, Brendan, who recently ran for his country at an international in Belgium.

Although the younger Goulds have achieved impressive competitive success, they gain much satisfaction from putting on events. Practically every member of the family has contributed with organising, planning and controlling. And if that were not enough, Geraldine runs an orienteers' shop at events.

The Goulds often say that they have been fortunate to have discovered orienteering, their environmental sport.

But that is only half the story. That environmental sport is fortunate to have been discovered by this remarkable family.



Education – the best way of

INTERVIEW WITH BRIAN PARKER,

1. Brian Parker, Chairman of the IOF Environmental Group, how and why was the group founded?

Way back in 1995 the IOF President, Sue Harvey, recognised the significance of the environmentally friendly nature of orienteering and the need to maintain it. She asked that a small project team be set up to propose guidelines for good environmental practice. The team met at 6 am in February 1996 in the forest just south of Frankfurt for an early run in darkness over snow-covered terrain. The assumption was that this would sharpen one's awareness of the environment, which it did. The team produced a draft set of good practice guidelines and these were approved by IOF Congress in 1998 and issued as the IOF Environmental Policy. To promote that policy the Environmental Group, with its present membership, was founded later that year.

2. Now the group has its terms of reference. The first objective is to promote good environmental practice. How would you describe "good environmental practice"?

The long answer is all five principles of the IOF Environmental Policy. If I had to select the most important underlying principle, it would be to ensure that the rules of competition and best practice in orienteering remain consistent with respect for the environment and the protection of flora and fauna.

3. What kind of issues are international matters in relation to orienteering and the environment?

There is world-wide awareness that the natural environment and its ecosystems are under threat and need to be protected. Since orienteering is a sport which uses the natural environment, there are legitimate concerns that the sport should be non-damaging and seen to be so.

4. How easy/difficult is it to draw up the codes for the member nations. The problems vary, I presume?

We have much work to do in this area. Attitudes and problems vary enormously from one country to another, due to geographic, climatic and cultural differences. Let me give you some examples of different environmental issues.

In Scandinavia there is some concern about the disturbance to elk from the large events. Most attention in the UK, on the other hand, is given to ground-nesting birds.

In Germany orienteers are caught between the environmentalists and the hunters, both groups being concerned that orienteering might disturb wildlife, but for entirely opposite reasons.



raising environmental awareness

CHAIRMAN OF THE IOF ENVIRONMENTAL GROUP

In Australia there is significant interest in the possibility of plant species being dispersed through mud and seeds on orienteers' shoes.

In the USA there is less concern that orienteering might harm wildlife but more that wildlife might harm orienteers. Bears can be a significant problem and so can also be poison ivy.

So, you see, the diversity of it all. What we are looking for are common themes which we can develop as baseline advice for the different countries to add to for their own special conditions.

5. How can the IOF Environmental Group make the sports world aware of good environmental practice in orienteering?

PHOTO: KEITH SAMUELSSON

By words such as these. But the very best way of demonstrating the really excellent environmental credentials of orienteering to someone not familiar with the sport is to take that person into the competition terrain while an event is in progress.

In my experience this never fails to make a profound impression. The most frequent comment is that there are hardly any competitors to be seen, despite the possibly large numbers known to be taking part.

This simply arises from the way orienteering is conducted, dispersing competitors in space and time, with the consequence that the effect on flora and fauna is minimised.

6. In how many member nations are there already officers responsible for environmental matters?

We have only recently requested nominations from member countries as to their environmental representatives, and responses are awaited.

7. What new technology in orienteering could be dangerous for the environment and how?

I cannot think of any conceivable technological advance which could cause environmental damage.

8. In Brian Parker's point of view, what is the biggest problem in the relationship with environment and orienteering?

There are two 'biggest problems', one within the sport and one outside. I am satisfied that, in general, orienteering has negligible environmental impact within the competition area. This is due to the dispersion of competitors mentioned earlier and to inherent good practice. However, there is potential for damage with the concentration of competitors in the assembly areas and the vehicle



parks. Normally these places are not at all vulnerable but organisers need to confirm that this is indeed the case.

It is a perception of many who are unfamiliar with orienteering that running across the countryside must damage the plants and disturb the birds and animals. This presumption that the sport is inherently damaging, although simplistic and incorrect, is quite widely held.

9. What could be the IOF Environmental Group's concrete measures to correct the problems mentioned above?

Education. Education of event organisers to remind them to confirm that the areas allocated for parking, assembly, start and finish are not environmentally sensitive.

Education of the world at large that orienteering is an environmentally sensitive sport. Come and try it!

The IOF environmental policy

At its ordinary General Assembly on 10 July 1998, the International Orienteering Federation, acknowledging the importance of maintaining the environmentally friendly nature of orienteering, and in accordance with the GAISF Resolution on the Environment and the IOC Manual on Sport and the Environment, adopted the following principles:

- to continue to be aware of the need to preserve a healthy environment and to integrate this principle into the fundamental conduct of orienteering
- to ensure that the rules of competition and best practice in the organisation of events are consistent with the principle of respect for the environment and the protection of flora and fauna

- to co-operate with landowners, government authorities and environmental organisations so that best practice may be defined
- to take particular care to observe local regulations for environmental protection, to maintain the litter-free nature of orienteering and to take proper measures to avoid pollution
- to include environmental good practice in the education and training of orienteers and officials
- to heighten the national federations' awareness of worldwide environmental problems so that they may adopt, apply and popularise principles to safeguard orienteering's sensitive use of the countryside
- to recommend that the national federations prepare environmental good practice guidelines specific to their own countries.

Terms of reference for the IOF Environmental Group

1. to promote good environmental practice in Orienteering, in accordance with the IOF Environmental Policy;
2. to offer advice and assistance with any international matter concerning orienteering and the environment;
3. to prepare environmental guidelines for IOF events, drawing on codes of practice issued by member nations;
4. to be aware of best practice in the sports world and, equally, to make the sports world aware of environmental practice in orienteering;
5. to foster co-operation between the Group and the IOF discipline committees;
6. to identify officers responsible for environmental matters in member nations (where necessary, encouraging such appointments) and to compile a register of contacts;
7. to establish a database of technical and scientific papers of relevance to environmental issues in orienteering and, as required, translating into English those national papers of international concern;
6. to examine critically such technical and scientific material, assessing its importance and suggesting relevant research.

These terms of reference for the Environmental Group were approved by IOF Council in December 1999.

The IOF Environmental Group

– five professionals and forerunners

Brian Parker (GBR, Chairman), started working life as a nuclear physicist but later changed



direction and taught environmental science to young naval officers. Following a sub-aqua accident in 1973 he decided to stay on dry land for his sporting interests and became an orienteer. Elected to BOF Council in 1988 he incautiously expressed views on orienteering and the environment and was immediately co-opted as the BOF Environmental Officer to guide the sport towards best environmental practice. This experience is now being put to use on behalf of the IOF. He also enjoys mapping and controlling, the latter as an IOF Licensed Controller for the two disciplines of foot orienteering and trail orienteering. His favourite activity is night orienteering.



Åke Barklund (SWE) is a forester, by education and practice, and also an economist, ecologist and

humanist. "Orienteering is the ultimate sport- it requires an alert brain and a fit body - of great joy and benefit to the orienteers themselves and to society as a whole. From almost an altruistic point of view, I support the sport in its relations with society. There is simply a job to do in dealing with forest owners and hunters in order to foster co-operation and to establish smooth relations, and the same applies in respect to the authorities and environmentalists." At present Åke is

employed as a development worker with the Swedish-financed "Regional Land Management Unit" (www.relma.org), in Nairobi, Kenya, but is engaged on projects in Eritrea, Ethiopia, Kenya, Uganda, Tanzania and Zambia.

Ernst Gruhn

(GER) is a teacher of the technology of motor vehicles and sport. He was introduced to OL in 1968. Since then he has been much involved with the technical aspects of orienteering at international level; as an IOF Technical Committee member, as trainer of the German OL national team, as IOF Technical Director for the WM in France in 1987, and many other contributions resulting in the award of the IOF pin badge. For the last decade he has been an IOF Licensed Controller and a member of the IOF Environmental Working Group. As a member of the OL Technical Committee in Germany he actively deals with issues of forest use, nature and the environment.



David Hogg (AUS) has worked professionally in environmental planning and assessment

since 1973, and operates his own environmental consulting firm, which also offers services in recreation planning, sports development and cartography.

His wide interests include the



Maria Silvia Viti (ITA) is a physical education teacher.

Ten years ago she discovered orienteering

and fell in love with it because this sport has the best facilities: the Natural World. So she included orienteering in her Rome school program.

Five years later, taking an opportunity offered by the European Community, she developed and co-ordinated the 3-year Comenius Project, titled Let's know the environment through orienteering.

This project, in various European countries, studied three natural environments, the Scandinavian, the Continental and the Mediterranean through orienteering maps.

In 1996 she was elected to the National Council of FISO and her responsibilities have included FISO contacts with the Ministry of Education and FISO international relations.

environmental management of recreational activities. He has been a regular orienteer since the sport started in Australia in 1969, and was the first President of the Orienteering Federation of Australia. Orienteering activities since then have included organising WOC85 in Australia and editing The Australian Orienter for 11 years.

He was a member of the group responsible for developing an environmental code of practice for the OFA. He is an IOF licensed controller and is Secretary of APOC (Asia Pacific Orienteering Championships).

World Cup 2000

By IAIN ROCHFORD

This year's World Cup series will see the world's best orienteers competing for World Cup points in a variety of challenging terrain, ranging from the lava rock slopes and bamboo areas of Mount Fuji in Japan, the detailed granite terrain of Australia with eucalyptus forest and steep spur-gully terrain, the Carpathian Mountains in the Ukraine, the complex contours and tricky rocks and marshes of Finland, to the drier and hopefully still sunny Portuguese terrain in mid-October.

Will the Norway be able to maintain its status as the world's leading orienteering nation after its successes at WOC 99 in Scotland, with 4 gold medals out of a possible 6 on offer? The Norwegian team will again be led by the best orienteering couple in the world – Bjørnar Valstad and Hanne Staff. The couple demonstrated superb early-season form with clear wins in their respective classes at the first races of the new Swedish Elite Series near Göteborg last weekend. There are also a number of absentees from the "gold" team of 1999, notably multi-world champion Petter Thoresen who is recovering from a serious snowboarding accident, and current short distance world champion Jørgen Rostrup.

The other Scandinavian nations, with Finland at the forefront, will be keen to give the Norwegians a run for their money, but the big question is likely to be: Can the Swedes come back after their "disastrous" (in their own eyes) performance in Scotland? Only two bronze medals on the last day in the respective relay races saved Sweden the ignominy of returning from a world championships without a medal of any sort for the very first time, albeit without the obligatory golds.

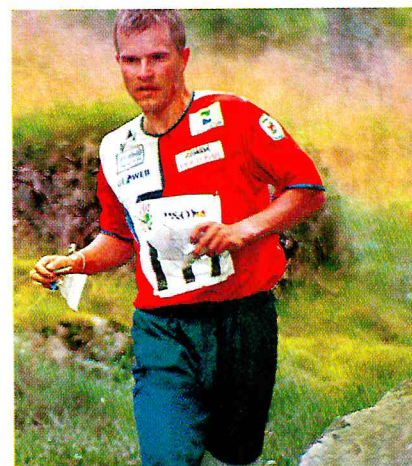
There was an intense debate in Sweden after WOC 99 as to the reasons for the "poor" performance. Some

critics maintained that many Swedish races were held in easy, fast terrain with too big an element of "park orienteering", and what was needed were technical courses in tough, demanding terrain. The result of this debate is the new Swedish Elite Series, a season-long series of tough races to prepare Swedish orienteers for the demands of international orienteering so that the Swedish team could regain its traditional role and again be "best when it matters" in major championships. However, is there is obviously some ground to recover as demonstrated by Bjørnar and Hanne's wins in the first races of the Elite Series.

The Swedish team is undergoing something of a generation change, somewhat more evident in the women's team, with Gunilla Svård expecting her first child, and only Katarina Allberg remaining from the WOC relay team last year. New on the team is Emma Engstrand who demonstrated fine early form with a win at the Spring Cup in Denmark, and in whom the Swedes have high hopes.

On the men's side Mr. Orienteering himself, Jörgen Mårtensson, has finally retired after an amazing international career spanning 21 years, following an injury in Scotland which prevented him from bowing out on a high note. Although not aiming for elite honours, he has just won the M40 class at the World Masters Orienteering Championships in January this year in New Zealand. The Swedish team will now be led by veteran Håkon Eriksson with a number of "young guns": Johan Näsman, Emil Wingstedt, and Niclas Jonasson looking to stake a claim.

The Finnish team again looks strong and will be expecting to cement its position as no. 2 nation. The men's team looks a major threat and with Petteri Muukonen winning the Danish



Last year was good for Bjørnar Valstad. What about this year?

PHOTO: PIRJO VALIANEN

Spring Cup race could challenge Norway. The Finnish women, led by current classic distance world champion, Kirsi Boström, will again pose a threat to the other nations.

Of course it is not only the big 3 Scandinavian countries which will be fighting for top honours. Denmark and Switzerland have always had strong teams, particularly in the men's relay and the Swiss women are also a force to be reckoned with, although it is rumoured that they may have "lost" half their team through pregnancy! Yvette Baker of GB, the current short distance world champion, will not however be running the first series of World Cup races, preferring to take a well-earned break and also to concentrate on completing her Ph.D. Grant Bluett, currently running well in Sweden will be keen to achieve good results in home terrain in Australia, and the current PWT men's champion, Rudolf Ropek of the Czech Republic should also be a main contender. The Danish team includes former World Champion Allan Mogensen who is nursing an injury and who chose to opt out of the Danish long-distance championships last weekend. The winner there, Flemming Jørgensen, has chosen not to travel to the first series of World Cup races as, despite his victory, he does not consider that he is in good enough form since he too has been injured and has lost valuable training during the winter.

The Ski Orienteering Queen's final farewell

BY ERIK BORG

In 1982 Arja Hannus became a World Champion in ski orienteering. This year she can claim the title again – for the ninth time. She can now retire happily after a year when the Russians have distinguished themselves as never before.

On 13 January Arja Hannus was 40 years old. Just two months later she became an individual World Champion in ski orienteering for the third time.

– You just have to realise that you do not need to be any worse with age as long as you remain motivated, states Arja.

So you're thinking maybe of continuing to the 2006 Winter Olympics if ski orienteering is admitted to the programme?

– No, I've done my bit, laughs the mother-of-two.

Arja is married to the former Russian elite ski orienteer, Ivan Kuzmin. They have two children; Alexander, born in 1993, and Julius, born in 1996.

– Sport has not been as important to me in the later stage of my career as it was ten years ago, but it has nevertheless been a central part of my life even though my family has been my highest priority, comments Arja.

Her goal for a long time had been the WOC in ski orienteering in Krasnojarsk for the Swedish "super woman". It was here that she would aim to achieve top form. She has managed to achieve this several times before, and she managed it again in Krasnojarsk. It was no walk-over, but the gold medal was hers, 12 seconds ahead of Liisa Anttila of Finland.

Each of her gold medals is important to Arja. The first gold came in 1982. In 1987 when she won the title for the

second time it was a real "knockout" performance, and in 1992 she gained revenge after being unsuccessful at the previous championships on home terrain. This year, the World Championships was the main goal. Arja has won the World Cup in ski orienteering twice. This year she did not concentrate on it so much.

Her team mate, Lena Hasselström, won by a long way. Lena also had very impressive early season form with three gold medals at the Nordic Championships and three World Cup victories in a row. At the World Championships she won two silver medals. In the relay the Swedish team came second after the Finns, and she won her second silver in the short distance race finishing just four seconds after Tatiana Vlasova of Russia.

What do you value most the gold medal from foot orienteering or ski orienteering?

– Both equally highly. There is no difference to me, states Arja.

The Swedish mother-of-two was not the only multi-champion to succeed in Krasnojarsk. In the men's class Nicolo Corradini, 35, won his fourth individual WOC gold medal. The Italian has an incredible ability to hit top form at the right time.



It was natural for all cameras to be aimed at Arja after her fantastic performance in the long distance race at the WOC.

PHOTO: TOMMI ROIMELA

Otherwise the WOC in Krasnojarsk in Siberia was a major triumph for Russia, both from the sporting and the organisational perspective.

Russia has a broad elite base and the best of these won three gold medals for the host nation. Vladislav Kormtschikov won the men's long distance title, Tatiana Vlasova won the women's short distance and the Russian men won the relay by a clear margin.

Eduard Khrennikov was part of the men's relay team and was the overall winner of the World Cup. His explanation for the Russian success is that they have many good races and strong competition for places on the team.

– And we have a lot of training camps, he adds.

Are you all professionals and just train and compete as ski orienteers?

– Of course, smiles Eduard.

If the Russian results were good, the organisation of the championship itself was just as impressive. In addition to the sporting side of the organisation, it was also a very spectator friendly event steeped in Russian friendliness which will set a new standard for future championships. A very enthusiastic home crowd in their thousands contributed to an extra special atmosphere at the championships, and these championships will be remembered as one of if the not the biggest championships within the sport of orienteering, either summer or winter.

Arja Hannus has had an incredible career spanning four individual WOC titles and five WOC relay gold medals. In Russia she was again best when it mattered.

The 1999 World Cup – a successful first



PHOTO: FERDINAND SUGG

Sylvain Mougín of France, and Maria Hrdinová of the Czech Republic, were the winners of the 1999 World Cup in MTB orienteering. A total of 140 competitors took part in the men's class, whilst the women's class attracted some 60 riders. The World Cup included seven races; five individual classic races and two relays.

The competition was extremely close; Mougín won the gold medal just 16 points ahead of Jiri Procházka from the Czech Republic. France's Gilles Perrin came third, only 12 points behind.

The competition was even closer in the women's class. Maria Hrdinová scored a total of 785 points, just ahead of Germany's Antje Bornhak with 774 points. Anna Podrabska, Germany, came third, just 19 points further behind Bornhak. The Czech Republic riders were extremely successful with 11 men and 9 women among the twenty best.

Eleven events in five countries

The 2000 World Cup will be, so far, the most ambitious one in this fast-growing discipline. It will include 8 individual events and 3 relay races to be held in the Czech Republic, Belgium, France, Hungary and Slovakia. The World Cup rankings will be based on a competitor's best five races and a national team's 2 best relay results.

Will this year's World Cup still be dominated by competitors and teams from the Czech Republic, Slovakia, France and Spain, or are some new countries already ready to challenge them? In Australia, participation in MTB orienteering events increased by 27 % last year, and national and state championship races attracted 15 % more riders than in 1998. Other countries can demonstrate corresponding significant growth.

Trail orienteering is different

By BARBRO RÖNNBERG



Competitors concentrating below a boulder field. The control marker in the picture belongs to foot orienteering event which was taking place in the same forest at the same time.

PHOTO: BRIAN PARKER

Trail orienteering is one of the four orienteering disciplines governed by the International Orienteering Federation. Whilst speed is essential to all of the other three disciplines, i.e. foot orienteering,

MTB orienteering and ski orienteering, trail orienteering is completely different. Speed of movement is not part of the competition.

In conventional orienteering, competitors must read the map whilst running at high speed. Trail orienteering completely eliminates the element of speed over the ground, but puts emphasis on the map-interpretation element instead.

Trail orienteers must identify on the ground control points shown on the map. Depending on the level of difficulty, up to five control markers are hung at each site and only one will correspond exactly with the control description and control circle position.

Trail orienteering has been developed to offer everyone, including people with limited mobility, a chance to participate in a meaningful orienteering competition.

It is an outdoor activity attractive to less active people, and it is a good activity for cultures that do not encourage physical exertion in older people, especially older women. Trail orienteering is quite widespread as an introductory activity, for children, and for training.

Control sites are chosen so that they can be seen from a wheelchair-navigable path or area, but at quite a distance into the forest or non-navigable terrain.

An escort can give the competitor physical help – pushing a chair, holding and orienting map and compass, even marking the control card with the decision according to the competitor's instructions. The escorts must not,

however, help the competitor in the decision-making process.

As the identification of the control points is done from a distance and there is a rule that no-one must leave the path (trail), both able-bodied and participants with disabilities compete on level terms. All the control markers must be hung so that they can be seen by anyone in a seated position on the trail. Most trail orienteering events have classes open for everyone.

Trail orienteering is a sport for all, but it is also an elite sport. European Championships in trail orienteering have been organised every year since 1994. The first ever World Cup in Trail Orienteering was organised as a two-day event in conjunction with the 1999 World Orienteering Championships.

The 2000 World Cup in Trail Orienteering will be made up of two rounds, one in Ukraine and one in Sweden. The events to be held in Ukraine also count as the European Championships.

Athletes who cannot participate on reasonably equal terms in the sport for able-bodied people because of a functional disadvantage due to a permanent disability are eligible for the Championships and the World Cup events. The national federations may enter World Cup teams of up to three persons of either sex. Open courses will be available for any competitors not selected for their national team.

The 2000 World Cup in Trail Orienteering:

**6–9 July Truskavets, Ukraine
(also European
Championships)**

**27 July O-Ringen Day 4,
Sweden**

MAJOR EVENTS



Foot Orienteering

2000

WORLD CUP

Events 1 & 2: Classic distance and Relay, 15–16 April, JPN

Events 3 & 4: Short and Classic distances, 22–24 April, AUS

Events 5, 6 & 7: Relay, Classic and Short distances, 30 June–4 July, UKR

Events 8 & 9: Short, Medium and Classic distances + Ultra short distance, 18–21 July, FIN

Events 10, 11 & 12: Short and Classic distances, Relay, 11–14 October, POR

JUNIOR WORLD CHAMPIONSHIPS
10–16 July, Nove Mesto Na Morave, CZE

WORLD MARATHON TROPHY

Event 1: The NZL rogaining championships, 15–16 January, NZL

Event 2: The 19th Raid IGN-Francital, 11–12 June, FRA

Event 3: The Slovenian orienteering marathon championships, 14–15 October, SLO

2001

WORLD MASTERS CHAMPIONSHIPS
1–5 July, Nida, Kursiu Nerija, LTU

JUNIOR WORLD CHAMPIONSHIPS
9–15 July, Miskolc, HUN

WORLD CHAMPIONSHIPS
28 July–5 August, Tampere, FIN

WORLD GAMES
16–20 August, Akita, JPN

2002

WORLD CUP
1–9 June, BEL and SUI
30 June–7 July, NOR and SWE
27 September–6 October, HUN and CZE

JUNIOR WORLD CHAMPIONSHIPS
July, dates to be confirmed, Villena, ESP

WORLD MASTERS CHAMPIONSHIPS
6–11 October, Bendigo, Victoria, AUS

2003

WORLD CHAMPIONSHIPS
4–10 August, Rapperswil/Jona, SUI
WORLD MASTERS CHAMPIONSHIPS
Dates to be confirmed, Halden, NOR

JUNIOR WORLD CHAMPIONSHIPS
Dates to be confirmed, Pölva, EST



Ski Orienteering

2001

WORLD CUP
Round 1:
17–23 January, BUL
24–28 January, AUT

Round 2:
26–28 February, SWE

Round 3:
6–10 March, FIN
12–17 March, RUS

JUNIOR WORLD CHAMPIONSHIPS
12–18 February, ITA

WORLD MASTERS CHAMPIONSHIPS
12–18 February, ITA

2002

WORLD CHAMPIONSHIPS
Dates to be confirmed, Borovets, BUL



Mountain Bike Orienteering

2000

WORLD CUP
Events 1, 2 & 3: Classic, relay, short, 1–3 September, Turnov, Prague, CZE
Events 4 & 5: Free order, classic, 16–17 September, Gedinne, BEL
Events 6 & 7: Classic, relay, 23–24 September, Orbey, Alsace, FRA
Events 8 & 9: classic, relay, 18–19

October, Veszprem, Budapest, HUN
Events 10 & 11: Short, long, 21–22 October, Banska Bystrica, SVK

2002

WORLD CHAMPIONSHIPS
Dates to be confirmed, FRA



Trail Orienteering

2000

WORLD CUP
6–8 July, Truskavets, UKR
27 July, Day 3 of O-Ringen, Hallsberg, SWE

2001

WORLD CUP
Early August, Tampere, FIN

MEETINGS

IOF Congress & General Assembly

31 July–6 August 2000, Leibnitz, AUT

IOF Council

28–30 April 2000, Helsinki, FIN
1, 2 and 5 August 2000, Leibnitz, AUT

Colombia new IOF member

The IOF Council has approved Colombia's application for associate membership. To be final, the decision has to be ratified by the forthcoming IOF General Assembly in Austria. Colombia included, the IOF family now counts 56 members.

New international standards for orienteering maps

The fifth edition of the "International Standard for Orienteering Maps" (ISOM 2000) came into effect on 1 January 2000. For practical reasons, maps based on the predecessor ISOM 1990 will be accepted for IOF events to be held in the year 2000. For the 2001 IOF events, maps must adhere to the standard. The very first issue of the ISOM saw the light of day already in 1969.

World Masters Championships in Orienteering

FEILDING, NEW ZEALAND,
JANUARY 1-7

Men: Class M35

- 1) Gert Jonsson SWE 1.15.20.
Class M40
1) Jörgen Mårtensson SWE 59.37.
Class M45-A
1) Tom Arild Karlsen NOR 59.48.
Class M50-A
1) Risto Orpana FIN 53.03.
Class M55-A
1) Matti Kattilakoski FIN 41.17.
Class M60-A
1) Olavi Erkkilä 44.23.
Class M65
1) Allan Haglund SWE 41.12.
Class M70
1) Helmer Ekberg SWE 40.20.
Class M75

- 1) Lennart Pettersson SWE 48.37.
Class M80
1) Gunnar Johansson SWE 33.10.
Class M85

- 1) Armas Salusvuori FIN 39.49.

Women: Class W35

- 1) Tuulikki Salmenkylä FIN 58.40.
Class W40
1) Jannike Wahlberg SWE 57.30.
Class W45
1) Jenny Bourne AUS 49.00.
Class W50
1) Vuokko Pesonen FIN 43.40.
Class W55
1) Carol McNeill GBR 38.20.
Class W60
1) Eivor Steen-Olsson SWE 43.20.
Class W65
1) Bunny Rathbone NZL 41.30.
Class W70
1) Pat Grenfell GBR 50.10.
Class W75
1) Annie Fulton SWE 45.30.
Class W80
1) Margareta Lambert USA 1.09.00.
Class W90
1) Waveney Bolwell I. 1.11.40.

World Cup in Ski Orienteering 2000

FINAL STANDINGS

Women:

- 1) Hasselström Lena SWE 197, 2) Zell Annika SWE 175, 3) Hannus Arja SWE 174, 4) Kosonen Hanna FIN 173, 5) Onischenko Irina RUS 166, 6) Vlasova Tatjana RUS 163, 7) Johansson Erica SWE 162, 8) Haustova Svetlana RUS 153, 9) Kirkevik Stine NOR 149, 10) Anttila Mervi FIN 144, 11) Madslie Valborg NOR 139, 12) Rajaniemi Katja FIN 135, 13) Jokinen Erja FIN 132, 14) Frei Natalia RUS 131, 15) Naumova Natalia RUS 119, 16) Väisänen Mervi FIN 116, 17) Issavnina Oksana RUS 114, 18) Novotná Helena CZE 102, 19) Hasle Kristin NOR 98, 20) Hämäläinen Terhi FIN 93, 21) Ruutiainen Maria FIN 88, 22) Mühlemann Regula SUI 81, 23) Bornhak Antje GER 77, 24) Grenholm Stina SWE 75, 25) Liisa Anttila FIN 72, 26) Chudíková Barbora CZE 72, 27) Feil

- Frida SWE 72, 28) Hasmanová Lenka CZE 63, 29) Wicki Yvonne SUI 57, 30) Dahlman-Tervala Maarit FIN 45.

Men:

- 1) Hrennikov Eduard RUS 181, 2) Gruzdev Andrei RUS 181, 3) Lanki Jukka FIN 175, 4) Lystad Lars NOR 161, 5) Keskinarkaus Matti FIN 159, 6) Lans Björn SWE 159, 7) Kortchagin Victor RUS 159, 8) Nordqvist Bertil SWE 156, 9) Pesu Raino FIN 147, 10) Olsen Tommy NOR 145, 11) Corradini Nicolo ITA 142, 12) Varis Pekka FIN 142, 13) Köngäs Teemu FIN 141, 14) Kormtshikov Vladislav RUS 138, 15) Löfgren Thomas SWE 119, 16) Bondar Nikolai RUS 115, 17) Turesson Clas SWE 115, 18) Urpalainen Jarkko FIN 113, 19) Ojandu Ander EST 108, 20) Lilja Arto FIN 106, 21) Kolstad Helge NOR 105, 22) Hauge Anders NOR 102, 23) Gritsan

- Ruslan RUS 96, 24) Venhoda Milan CZE 88, 25) Vodrázka Jakub CZE 87, 26) Seber Walter ITA 77, 27) Tonna Eivind NOR 77, 28) Edvardsen Andreas NOR 69, 29) Lauerma Jan CZE 64, 30) Mosimann Peter SUI 63.

Relay

Men:

- 1) Finland 57, 2) Russia 50, 3) Sweden 47, 4) Norway 41, 5) Czech Republic 22, 6) Switzerland 26, 7) Italy 28, 8) Estonia 19, 9) Bulgaria 14, 10) Austria 14, 11) Slovakia 8, 12) Belarus 11, 13) Germany 7, 14) France 6, 15) Ukraine 5, 16) Romania 4, 17) Japan 2, 18) USA 1.

Women:

- 1) Finland 54, 2) Sweden 52, 3) Russia 50, 4) Norway 39, 5) Czech Republic 22, 6) Switzerland 10, 7) Germany 10, 8) Slovakia 0, 9) Bulgaria 0.

World Championships in Ski Orienteering

KRASNOYARSK, RUSSIA, FEBRUARY 29 – MARCH 6, 2000

Classic Distance

Women:

1) Arja Hannus SWE 1.00.04, 2) Liisa Anttila FIN 1.00.16, 3) Hanna Kosonen FIN 1.02.02, 4) Irina Onischenko RUS 1.02.53, 5) Svetlana Haustova 1.03.19, 6) Lena Hasselström SWE 1.04.03, 7) Natalia Frei RUS 1.04.28, 8) Tatjana Vlasova RUS 1.05.27, 9) Annika Zell SWE 1.05.48, 10) Mervi Anttila FIN 1.06.07, 11) Valborg Madslien NOR 1.06.28, 12) Katja Rajaniemi FIN 1.06.57, 13) Erica Johansson SWE 1.07.04, 14) Kristin Hasle NOR 1.08.12, 15) Helena Novotna CZE 1.08.14, 16) Erja Jokinen FIN 1.08.20, 17) Stine Kirkevik NOR 1.08.50, 18) Marte Reenaas NOR 1.09.36, 19) Regula Mühlemann SUI 1.10.22, 20) Antje Bornhak GER 1.12.56.

Men:

1) Vladislav Kormtshikov RUS 1.38.28, 2) Jukka Lanki FIN 1.38.45, 3) Andrei Gruzdev RUS 1.40.16, 4) Björn Lans SWE 1.41.04, 5) Eduard Hrennikov RUS 1.41.08, 6) Matti Keskinarkaus FIN 1.41.46, 7) Nicolo Corradini ITA 1.42.30, 8) Bertil Nordqvist SWE 1.42.52, 9) Victor Kortchagin RUS 1.43.13, 10) Lars Lystad NOR 1.43.20, 11) Nikolai Bondar RUS 1.43.24, 12) Pekka Varis FIN 1.43.54, 13) Claes Turesson SWE 1.44.32, 14) Milan Venhoda CZE 1.44.55, 15) Peter Mosimann SUI 1.45.19, 16) Arto Lilja FIN 1.45.27, 17) Tomas Löfgren SWE 1.46.07, 18) Jakub Vodrazka CZE 1.48.30, 19) Anders Hauge NOR 1.48.38, 20) Ander Ojandu EST 1.48.56.

Short Distance

Women:

1) Tatjana Vlasova RUS 22.42, 2) Lena Hasselström SWE 22.46, 3) Liisa Anttila FIN 23.02, 4) Stine Kirkevik 23.06, 5) Irina Onischenko RUS 23.20, 6) Annika Zell SWE 23.26, 7) Arja Hannus SWE 23.30, 8) Svetlana Haustova RUS 23.46, 9) Katja

Rajaniemi FIN 23.57, 10) Erica Johansson SWE 24.01, 11) Valborg Madslien NOR 24.32, 12) Natalia Naumova RUS 24.35, 13) Helena Novotna CZE 24.55, 14) Hanna Kosonen FIN 24.57, 15) Regula Mühlemann SUI 25.02, 16) Kristine Hasle NOR 25.06, 17) Yvonne Wicki SUI 26.04, 18) Mervi Anttila FIN ja Antje Bornhak GER 26.08, 20) Marte Reenaas NOR 26.16.

Men:

1) Nicolo Corradini ITA 33.13, 2) Eduard Hrennikov RUS 33.53, 3) Andrei Gruzdev RUS 34.33, 4) Matti Keskinarkaus FIN 35.00, 5) Björn Lans SWE 35.10, 6) Vladislav Kormtshikov 35.21, 7) Viktor Kortchagin RUS 35.24, 8) Jukka Lanki FIN 35.34, 9) Andreas Ervardsen NOR 35.59, 10) Bertil Nordqvist SWE 36.05, 11) Tomas Löfgren SWE 36.07, 12) Claes Turesson SWE ja Lars Lystad NOR 36.10, 14) Peter Mosimann SUI 36.11, 15) Arto Lilja FIN 36.12, 16) Pekka Varis FIN 36.20, 17) Raino Pesu FIN 36.26, 18) Ander Ojandu EST 36.59, 19) Anders Hauge NOR ja Jakub Vodrazka CZE 37.03.

Relay

Women:

1) Finland (Mervi Anttila 28.42, Hanna Kosonen 27.29, Liisa Anttila 27.13) 1.23.24, 2) Sweden (Annika Zell 29.02, Arja Hannus 27.03, Lena Hasselström 27.34) 1.23.39, 3) Russia (Irina Onischenko 28.03, Tatjana Vlasova 27.40, Svetlana Haustova 29.10) 1.24.53, 4) Norway (Valborg Madslien 29.38, Kristin Hasle 29.21, Stine Kirkevik 31.47) 1.30.46, 5) Czech (Barbora Chudikova 29.10, Helena Novotna 30.02, Lenka Hasmanova 32.43) 1.31.55, 6) Suisse (Yvonne Wicki 35.37, Regula Mühlemann 32.15, Iris Bader 32.08) 1.40.00.
USA DNF, Belorussia DNF, Hungary DNF, Bulgaria DNF.

Men:

1) Russia (Andrei Gruzdev 42.52, Viktor Kortchagin 40.28, Vladislav Kormtshikov 41.31, Eduard Hrennikov 39.32) 1.44.23, 2) Finland (Raino Pesu 43.54, Pekka Varis 41.37, Jukka Lanki 39.59, Matti Keskinarkaus 41.20) 1.46.50, 3) Sweden (Tomas Löfgren 45.12, Claes Turesson 43.10, Bertil Nordqvist 40.40, Björn Lans 42.08) 1.51.10, 4) Norway (Helge Kolstad 47.50, Anders Hauge 46.00, Andreas Ervardsen 44.21, Lars Lystad 40.35) 1.58.46, 5) Czech (Jan Lauerma 48.17, Milan Venhoda 43.48, Jakub Vodrazka 41.14, Lubomir Tomecek 48.01) 3.01.20, 6) Suisse (Peter Mosimann 44.32, Jan Beguin 48.31, Lukas Stoffel 47.07, Stefan Lauenstein 44.28) 3.04.38, 7) Italy (Walter Seber 48.20, Mauro Simoni 51.54, Luigi Girardi 47.50, Nicolo Corradini 41.13) 3.09.17, 8) Estonia (Margus Hallik 49.47, Raul Kudre 44.35, Vallo Vaher 52.26, Ander Ojandu 43.54) 3.10.42, 9) Bulgaria (Nikolay Dimitrov 53.30, Plemen Mestanski 54.40, Mihail Mihailov 49.34, Todor Kalniev 45.32) 3.23.16, 10) France (Frank Dechavanne 47.28, Pierre Bernard 51.26, Robert Monshein 56.47, Laurent Dechavanne 50.46) 3.26.28, 11) Austria (Markus Buchtele 49.16, Johann Kugler 49.37, Hannes Pacher 57.03, Maximilian Habenicht 50.42) 3.26.38, 12) Germany (Eike Bruns 55.09, Harald Mannel 51.08, Antje Bornhak 57.23, Bernd Kohlschmidt 53.26) 3.39.06, 13) Belorussia (Igor Zvontsov 50.24, Pavel Tchernij 57.56, Igor Zaitsev 59.15, Yuri Usmanov 59.50) 3.47.25, 14) Japan (Tetsushi Maruyama 55.34, Kotaro Wakai 56.08, Yuka Ueno 64.08, Kiyoshi Seki 62.48) 3.58.38, 15) USA (Scott Pleban 55.18, Larry Constantino 1.23.14, Carl Fey 1.00.33, Gary Brackett 56.57) 4.16.02.
Ukraine DNF, Slovakia DNF, Hungary DNF.

Junior World Championships in Ski Orienteering

BANSKA BYSTRICA, SLOVAKIA, JANUARY 31 – FEBRUARY 6, 2000

Classic Distance

Men: 1) Petri Kiiskinen FIN 48.38, 2) Marc Lauenstein SUI 50.58, 3) Jari Sillman FIN 51.04, 4) Pasi Kiiskinen FIN 51.06, 5) Remo Fischer SUI 51.39, 6) Vasili Gloukharev RUS 52.53, 7) David Andersson SWE 52.55, 8) Olav Hagelia NOR 53.03, 9) Anton Protasevitch RUS 53.15, 10) Jarno Parkkinen FIN 53.18.

Women: 1) Ekaterina Chizhikova RUS 50.35, 2) Kirsi Vanhalakka FIN 53.30, 3) Aino-Maria Hirvi FIN 53.58, 4) Hanna Partanen FIN 54.16, 5) Marie Lund SWE 55.36, 6) Svetlana Shvetsova RUS 56.12, 7) Anna Oustanova RUS 56.24, 8) Kjersti Reenaas NOR 58.50, 9) Karin Kjellman SWE 59.47, 10) Maria Bergkvist SWE 1.00.09.

Short Distance

Men: 1) Vasilii Gloukharev 20.49, 2) David Andersson SWE 21.17, 3) Peter Arnesson SWE 21.26, 4) Olav Hagelia NOR 21.30, 5) Remo Fischer SUI 21.42, 6) Petri Kiiskinen FIN ja Alexandre Kouriushev RUS 21.59, 8) Oystein Osterbo NOR 22.05, 9) Marc

Lauenstein SUI 22.53, 10) Pasi Kiiskinen FIN 22.59.

Women: 1) Aino-Maria Hirvi FIN 19.42, 2) Ekaterina Chizhikova RUS 21.04, 3) Salla Lehto FIN 21.35, 4) Marie Lund SWE 21.44, 5) Kirsi Vanhalakka FIN 22.41, 6) Maria Bergkvist SWE 22.57, 7) Svetlana Shvetsova RUS 23.09, 8) Hanna Partanen FIN 23.18, 9) Tone Lye NOR 23.21, 10) Anna Oustanova RUS 24.55.

Relay

Men: 1) Suisse (Lauenstein Marc, Fischer Remo, Fischer Boris) 101.48, 2) Sweden (Engvall Erik, Andersson David, Arnesson Peter) 102.16, 3) Russia (Kouriushev Alexandre, Protasevitch Anton, Gloukharev Vasilii) 102.44, 4) Finland (Kiiskinen Pasi, Sillman Jari, Kiiskinen Petri) 103.07, 5) Norway (Myhre Mattis, Hagelia Olav Bakken, Osterbo Oystein Kvaal) 105.32, 6) Ukraine (Borys Andriy, Nimchuk Ivan, Zhuravel Arsen) 108.20, 7) Czech (Redlich Tomas, Mrazek Jan, Hora Zbynek) 111.08, 8) Estonia (Tomson Tarmo, Klaasimae Tarvo, Siimsaare Tarmo) 117.18, 9) Romania (Danila

Florin, Bogdan Mircea, Zete Vasile) 121.52, 10) Bulgaria (Mestanski Plamen, Ilkov Ilian, Totorov Hristo) 126.57, 11) Italia (Simoni Mauro, Peer Andrea, Ceol Roberto) 132.53, 12) Lithuania (Bikulc Arturas, Novicenko Edvardas, Grigaitis Tomas) 138.24, 13) Belorussia (Tchij Michail, Labanovsky Alexandr, Zhukov Alexey) 148.03.

Women: 1) Finland (Lehto Salla, Vanhalakka Kirsi, Hirvi Aino-Maria) 100.37, 2) Russia (Shvetsova Svetlana, Chizhikova Ekaterina, Oustanova Anna) 102.20, 3) Sweden (Kjellman Karin, Bergkvist Maria, Lund Marie) 104.49, 4) Norway (Reenaas Kjersti, Moe Lene, Lye Tone Ellefsen) 108.20, 5) Czech (Stehnova Zuzana, Lacigova Michaela, Dattelova Iva) 119.30, 6) Estonia (Raudsepp Anni, Parm Signe, Maeots Tuuli) 123.33, 7) Suisse (Wyder Manuela, Oswald Jeanine, Fritschy Martina) 124.32, 8) Bulgaria (Belomageva Stefania, Dimitrova Kristina, Malcheva Teodora) 125.49, 9) Italia (Valt Romina, Murer Johanna, Kirchlechner Kristine) 140.06, 10) Romania (Bors Anca, Nagy Isabela, Iring Andreea) 157.59.

World Masters Championships in Ski Orienteering

VELINGRAD, BULGARIA,
FEBRUARY 20–27

Classic Distance

Women:

Class W35
1) Snejana Kadieva BUL 105.26.
Class W45
1) Tatiana Barsoukova RUS 60.05.
Class W50
1) Veska Georgieva BUL 58.07.
Class W55
1) Sharon Crawford USA 69.42.
Class W60
1) Elsa Lystad NOR 74.59.

Men:

Class M35
1) Risto Linnainmaa FIN 73.51.
Class M40
1) Andras Csucs ROM 85.31.
Class M45
1) Willy Fischer AUT 85.12.
Class M50
1) Kyösti Mikkola FIN 87.00.
Class M55
1) Curt Maier AUT 57.27.
Class M60
1) Boris Semenov RUS 58.47.
Class M65
1) Dicho Gogov BUL 133.48.

Short Distance

Women:

Class W35
1) Snejana Kadieva BUL 99.47.
Class W45
1) Tatiana Barsoukova RUS 35.57.

Class W50

1) Veska Georgieva BUL 39.56.
Class W55
1) Sharon Crawford USA 42.44.
Class W60
1) Elsa Lystad NOR 60.22.

Men:

Class M35
1) Risto Linnainmaa FIN 34.37.
Class M40
1) Sergei Egorov RUS 41.44.
Class M45
1) Willy Fischer AUT 47.18.
Class M50
1) Kyösti Mikkola FIN 47.02.
Class M55
1) Curt Maier AUT 33.59.
Class M60
1) Boris Semenov RUS 29.38.
Class M65
1) Dicho Gogov BUL 65.52.

IOF MEMBERS

ARG: Federacion del Deporte de Orientacion de la Republica Argentina*
Juncal 1662, C.P. 1062, Buenos Aires, Argentina, Tel +54 1 781 4898, Fax +54 1 814 4128
AUS: Orienteering Federation of Australia
P.O. Box 740, Glebe NSW 2037, Australia, Tel +61 29 660 2067, Fax +61 29 660 2067
e-mail: Orienteering@dsr.nsw.gov.au Home page: <http://www.sportnet.com.au/orienteering>
AUT: Österreichischer Fachverband für OL
Prinz Eugenstrasse 12, A-1040 Wien, Austria, Tel +43 1505 03 93, Fax +43 1505 03 93,
e-mail: office@oefol.at Home page: <http://www.oefol.at>

BEL: Association Belge des Sports d'Orientation, c/o Jan Herremans, Sec.Gen., Meerhof 12, B-3971 Heppen, Belgium, Tel +32 11 34 33 01, e-mail: Bart.Herremans@ping.be
Home page: <http://www.ping.be/~ping0623/>
BLR: Belarus Orienteering Federation, Mr. Vitaly Rogovski, President
Kirova Str. 8/2-701, 220600 Minsk, Belarus, Tel&Fax +375 0 17 262 49 08, e-mail: rogovsky@yahoo.com
BRA: Brazilian Orienteering Confederation
Rua Tenente Carrion, 7, Vila Oliveira, Santa Maria, RS, CEP 97020-690, Brazil, Tel&Fax +55 212 3348, e-mail: cbo@sm.conex.com.br
BUL: Bulgarian Orienteering Federation
Bul "Vassil Levski" 75, BG-1000 Sofia, Bulgaria, Tel&Fax +359 2 874 427, e-mail: bgof@mail.prosoft.bg Home page: <http://www.hail.icestorm.com/orientbg>

CAN: The Canadian Orienteering Federation
Box 62052, Convent Glen P.O., Orleans, Ontario K1C 7H8, Canada, Tel +1 613 830 1197
Fax +1 613 830 0456, e-mail: ckirk@rtm.cdnspport.ca Home page: <http://www.orienteering.ca>
CHI: The Chilean Orienteering Federation*
Cabañas el Gringo, Casilla 57, Viñón - Temuco, Chile, Tel +56 45 56 21 21, Fax +56 45 56 21 21, e-mail: kuhnemdi@chilesat.net
CHN: Chinese Orienteering Committee
No. 9 Tiuyuan Road, CN-100763 Beijing, China, Tel +86 10 6701 1177, ext. 2601,
Fax +86 10 6702 5289
COL: Bucaramanga Orientacion Club*
Mr Carlos Ariel Garcia, President, Carrera 21 Numero 158-80, Alamos Parque C 88, Canaveral, Bucaramanga, Colombia, Tel&fax +57 7 6384564
CRO: Croatian Orienteering Federation
Kozarceva 22, HR-10000 Zagreb, Croatia, Tel +385 1 48 24 142, Fax +385 1 455 79 11
CUB: Cuban Orienteering Federation*
Via Blanca y Boyeros, INDER, Ciudad Deportiva Heipio Cerro, Zona Postal Habana 5, Cuba
Tel +53 7 32 8441
CZE: Cesky svaz orientacniho behu
P.O. B. 40, Mezi stadiony, CZ-16017 Praha 6 - Strahov, Czech Republic, Tel +42 0 2 20513295,
Fax +42 0 2 20513295, e-mail: csob@cstv.cz Home page: <http://www-ob.fsv.cvut.cz>

DEN: Dansk Orienterings-Forbund
Idraettens Hus, Brøndby Stadion 20, DK-2605 Brøndby, Denmark, Tel +45 4345 7730,
Fax +45 4345 7790, e-mail: dof@dif.dk Home page: <http://www.dk.orienteering.org/>
Ski-O related matters: Dansk Skiforbund
Idraettens Hus, Brøndby Stadion 20, DK-2605 Brøndby, Denmark, Tel +45 4326 2331, e-mail: henrik.fritzen@dsklif.dk

ECU: The Orienteering Federation of Ecuador*
Club Deportivo de Orientacion Quito, Casilla Postal No. 17-12-527, Quito, Ecuador, Tel +593 2 540 834, Tel&fax +593 2 543 616
ESP: Agrupacion Espanola de Clubes de Orientacion, SG Jesús de Miguel Rey, Gran Via, 66-8 - ofic.16, ES-28013 Madrid, Spain, Tel +34 1 542 0880, Fax +34 1 542 0880, e-mail aeol@arrakis.es
EST: Eesti Orienteerimisliit
Regati 1, EE-11911 Tallinn, Estonia, Tel&Fax+372 6398681, e-mail: eol@spin.ee
Home page: <http://www.sport.ee/eol/>

FIN: Suomen Suunnistusliitto
Radiokatu 20, FI-00093 SLU, Finland, Tel +358 9 3481 2453, Fax +358 9 3481 2433,
e-mail: info@ssl.fi Home page: <http://www.ssl.fi>

FR: Fédération Française de Course d'Orientation
B.P. 220, FR-75967 Paris Cedex 20, France, Tel +33 147 971 19, Fax +33 147 979029,
e-mail: fcco@compuserve.com Home page: <http://www.fcco.asso.fr>

GBR: British Orienteering Federation
Riversdale, Dale Road North, Darley Dale, Matlock, Derbyshire DE4 2HX, England,
Tel +44 1629 734 042, Fax +44 1629 733 769, e-mail: bof@bof.cix.co.uk
Home page: <http://www.cix.co.uk/~bof/>
GER: Deutscher Turner Bund /Abteilung Sport Orientierungslauf
Otto-Fleck-Schneisse 8, DE-60528 Frankfurt am Main, Germany, Tel +49 6967 8010,
Fax +49 6967 801179, Home page: <http://www.orientierungslauf.de>
GRE: Hellenic Orienteering Club*
Damagitou 6, 116 31 Athens, Greece, Tel&Fax +30 1 7562 405, e-mail: nikositi@otenet.gr

HKG: Orienteering Association of Hong Kong
Room 1014, Sports House, 1 Stadium Path, So Kon Po, Causeway Bay, Hong Kong,
Tel +852 2 504 8111, Fax +852 2 577 5595, e-mail: info@oahk.org.hk Home page: <http://www.oahk.org.hk>
HUN: Magyar Tájékozódási Futó Szövetség
Dózsa Gy. t 1-3., HU-1143 Budapest, Hungary, Tel +36 1 2215878, Fax +36 1 2215878
Home page: <http://azarus.elte.hu/tajfutas/>

IND: Orienteering Federation of India*, Mr. Pardeep Kumar Gautam, I.C.
3/79, Ram Gali, Vishwas Nagar, Delhi - 110032 Shahdara, India, Tel +91 11 222 4536, Fax +91 11 941 111
IRL: Irish Orienteering Association
87, Meadow Vale, Blackrock, Co. Dublin, Ireland, Tel +353 1 450 9845, Fax +353 1 450 2805
e-mail: irishoa@tinet.ie Home page: <http://homepage.eircom.net/~orienteeringireland>
ISR: Israel Sport Orienteering Association
P.O. B. 335, IL-45102 Hod Hasharon, Israel, Tel +972 9 748 1758, Fax +972 9 741 4251, e-mail: nivut@netvision.net.il, Home page: <http://www.orienteering.org.il>
ITA: Federazione Italiana Sport Orientamento
Piazza S.Pellico, 5, I-38100 Trento, Italy, Tel. +39 0461 231380, fax +39 0461 236424, e-mail: fiso@tecnote.it Home page: <http://www.fiso.it>

JAM: Jamaica Orienteering Federation*
c/o The Sports Department, University of Technology
Jamaica, 237 Old Hope Road, Kingston 6, Jamaica, Tel +1 876 966 5685, Fax +1 876 966 5115
JPN: Nihon Orienteering Kyokai
Kastanie Shiba Bldg 2 F, 3-28-2 Shiba, Minato-ku, JP-105 Tokyo, Japan, Tel +81 35476 5657
Fax +81 35476 5658

KAZ: Sport Orienteering Federation of the Republic of Kazakhstan
Abai ave. 48, 480072 Almaty, Kazakhstan, Tel +7 327 2 674 793, Fax +7 327 2 675 088
KOR: Korea Orienteering Federation, C.P.O. Box 3954, Seoul, Korea, Tel +82 2 2660140, Fax +82 2 8581193

LAT: Latvijas Orientēšanas Federācija
Terbatas Str. 4, LV-1050 Riga, Latvia, Tel +371 7 229660, Fax +371 7 284412, e-mail: Rodrigo.Slavins@balta.lv Home page: <http://www.orient.lv>
LTU: Lietuvos Orientavimosi Sporto Federacija
Perkuno Alėja 5, 3000 Kaunas, Lithuania, Tel +370 7 205 733, Fax +370 7 205 733
e-mail: losf@post.sonexco.com Home page: <http://www.sonex.lt/losf/>

MAS: Malaysian Orienteering Association*
c/o Lee Kwan Meng, 55 Jalan SS 19/6H, Subang Jaya, MY47500 Petaling Jaya, Malaysia,
Tel +60 3 731 4914
MDA: Orienteering Federation of the Republic of Moldova*, Mr. Nikolai Cotorobai, President, bd. Mircea cel Batrin 25/1, 2075 Kishinev, Republic of Moldova,
Tel. +373 2 58 04 81, Fax +373 2 58 40 01
MKD: Mountain Climbing Ass. of Macedonia*
11 Oktomvri Str. 42 A, 91000 Skopje, Macedonia, Tel +389 091235540

NED: Nederlandse Oriënteringsloop Bond
Secretary Fons Kraaikamp, Ooievaardspad 7, 3403 AM IJsselstein, The Netherlands,
Tel +31 30 6888759, e-mail: kraaikam@hetnet.nl
Home page: <http://www.xs4all.nl/~klaver80/NOLB/index.htm>,

NOR: Norges Orienteringsforbund
Serviceboks 1, Ullevål Stadion, NO-0840 Oslo, Norway, Tel +47 21 02 90 00, Fax +47 21 02 95 11, e-mail: nof@orientering.no Home page: <http://orientering.no>
NZL: New Zealand Orienteering Federation
Secretary Andy Clayton, 22 Torquay Terrace, Hanmer Springs, New Zealand,
Tel/Fax +64 3 315 7383, e-mail: outdoors@clear.net.nz
Home page: <http://www.nz.orienteering.com>

POL: Polski Związek Biegu na Orientację
ul. Wilcza 38 a, PL00679 Warszawa, Poland, Tel +48 22 6255 691, Fax +4822 6295 004
POR: Federação Portuguesa de Orientação
Apartado 2, PT-2644-909 Mafra, Portugal, Tel&Fax +351 261 819 171, Fax +351 261 819 173,
e-mail: fpo@mail.telepac.pt, Home page: <http://www.fpo.pt>

ROM: Romanian Orienteering Federation
Str. Vasile Conta 16, RO-70139 Bucharesti, Sect. 2, Romania, Tel +40 1211 0160, Fax +40 1210 0161
e-mail: rom_ofed@bx.logicnet.ro, Home page: <http://www.uttgm.ro/~lvarga/frohome.html>
RSA: The South African Orienteering Federation
P.O. Box 8968, Cinda Park, ZA-1463 Gauteng, South Africa, Tel +27 11 360 3046, Fax +27 11 360 3266, e-mail: ianbratt@global.co.za, Home page: <http://www.orienteering.org.za>
RUS: Russian Orienteering Federation /Sergei Beliaev, President, Box 57, Moscow, 123060, Russia, Tel&Fax +7 095 196 9089, +7 095 196 7155, e-mail: ntorient@cityline.ru, Home page: <http://www.welcome.to/rus-orienteering>

SLO: Orientacijska Zveza Slovenije
Legatova 6a, SI-1000 Ljubljana, Slovenia, Tel +386 61 125 0676, Fax +386 61 125 0677 (for the attention of Dusan Petrovic) e-mail: dusan.petrovic@institut-gf.uni-lj.si
SUI: Schweizerischer Orientierungslauf-Verband /Marianne Bandixen
Langweidstrasse 2, CH-8620 Wetzikon, Switzerland, Tel +41 1932 5080, Fax +41 1932 5084
e-mail: solv@active.ch Home page: <http://www.solv.ch>
SVK: Slovenský zväz OB
Junacka 6, 83280 Bratislava, Slovakia, Tel +421 7 49249207, Fax +421 7 49249536, e-mail: szob@isternet.sk Home page: <http://www.alfa.sk/ob>
SWE: Svenska Orienteringsförbundet
Idrottens Hus, SE-123 87 Farsta, Sweden, Tel +46 8 6056000, Fax +46 8 6056360, e-mail: info@orientering.se
Home page: <http://www.orientering.se/>
Ski-O related matters: Svenska Skidförbundet
Box 20, SE-171 18 Solna, Sweden, Tel +46 8 587 720 32, Fax +46 8 587 720 88,
e-mail: frick@dataphone.se Home page: <http://www.svenskidrott.se/skidor>

TPE: Chinese Taipei Orienteering Association*
M.S. Peng, Chairman, Rm. 1304, Wealthy Bldg No. 206, Sec. 2, Nanking East Rd, Taipei, Taiwan, R.O.C., Tel. +886 22 506 2081, Fax +886 22 506 2083, e-mail: Orienteering@nlaruco.url.com.tw

UKR: Ukrainian Orienteering Federation
St. Luteranska 11, ap. 3, UA-252024 Kiev-24, Ukraine, Tel +380 44 265 9074,
Tel & Fax +380 44 228 3870, e-mail: uaorienters@geocities.com
Home page: <http://www.geocities.com/Colosseum/Stadium/8930/>
URU: Uruguayan Orienteering Association*
Casa de los Deportes "Artigas", Canelones 982, Montevideo, Uruguay, Tel&Fax +598 2 902 51 07,
e-mail: msamor@adinet.com.uy
USA: United States Orienteering Federation
P.O. Box 1444, Forest Park, GA 30298, USA, Tel +1 404 363 2110, Fax +1 404 363 2110
e-mail: rshannonhouse@mindspring.com Home page: <http://www.us.orienteering.org/>

VEN: Club de Senderismo y Orientacion Deportiva*
Av. Urdaneta, Edif. Doral Centro, torre B piso 12 apto 121-B, La Candelaria, Caracas 1010, Venezuela, Tel/Fax: +58 572 1444/+58 573 1449, e-mail: submontur@cantv.net & j0010416-1@cantv.net

YUG: Yugoslav Orienteering Federation
Postanski Fah 33, YU11420 Smederevska Palanka, Yugoslavia, Tel&Fax +381 2631 3031,
e-mail: tasicziv@EUnet.yu

*Associate member



worldsport • com TM

WorldSport Mail 

Your membership card to
the sporting community

register now for your
free mail service at

www.orienteeing.worldsport.com

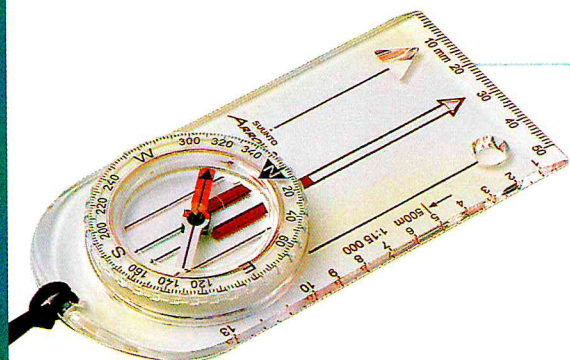
the official home of
orienteering on the
internet

HOME NEWS SPIRIT OF SPORT CLUBHOUSE LIVE TRAINING CALENDAR GOVERNMENT HOUSE

<http://www.worldsport.com>

Arrow competition compasses **STEADIER. FASTER.**

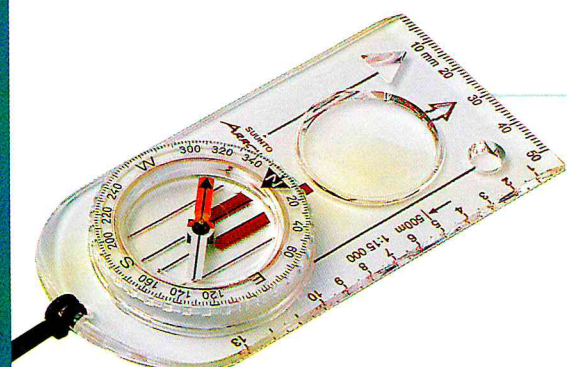
Super fast competition compasses with a unique double bearing needle. The streamlined Arrow compasses show the direction faster and steadier than the rest – this is the difference between competing and winning.



ARROW-20

The top of the line in competition compasses.

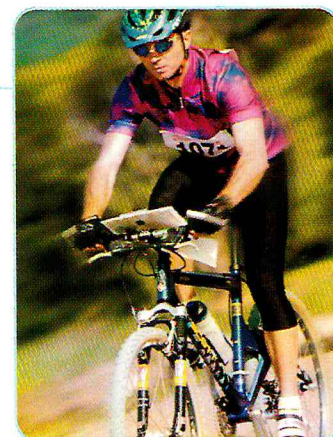
- ergonomically shaped base plate
- improved printings on the base plate and capsule
- holes for drawing control marking points



ARROW-30

The top class competition compass.

- ergonomically shaped base plate with improved printings
- magnifying lens enables map symbols to be clearly read from maps
- holes for drawing control marking points



ARROW-1

The elite of thumb compasses. Clearer and easier to use than ever.

- design of the compass enables the direction to be easily and quickly read
- durable printings
- rotating capsule

