

GLASSHOUSE TRAIL EVENTS

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FOREWORD

Although the main purpose of the Glasshouse Trail Events is to allow runners and walkers to test their ability over more difficult, but scenic, terrain there is another purpose. This is to create interest in the eventual establishment of a permanent set of trails in this region.

The Glasshouse Mountains are of great historical, cultural and geological significance. Standing just north of Caboolture these weird rock formations are like sentinels. They were named by Captain Cook during his epic voyage up the east coast of Australia on May 17, 1770. Geologically they are massive hunks of trachyte left behind after the overlying softer rock was worn away by the forces of nature. Their names - Beerwah, Tibrogargan, Coonowrin, Tunbubudla, Beerburum, Ngungun, etc - reflect the Aboriginal culture surrounding the mountains. Most tourist brochures on South East Queensland recommend a visit to this area because of the scenic nature of these unusual structures. Their shapes vary depending on the aspect from which they are viewed. This area is very accessible from Brisbane the major population area of Queensland.

A set of permanent, marked trail in this area will allow tourists to spend an extended period of time in the area rather than simply driving to one or two of the lookouts and then moving on. This set of trails would need to be established after discussions with the relevant authorities such as the Queensland Parks and Wildlife Services, Forest Plantations of Queensland, Local Authorities, private landholders and other local interested organisations. Events such as the Glasshouse Trail Events could be used to raise funds to assist in the development and maintenance of such trails. Another benefit of a clearly marked trail is that visitors to the area would be less likely to make their own trails which can lead to environmental damage.

Early in 1999 the Glasshouse Mountains Advancement Network put in an application to the government for a grant to establish a series of marked trails in the Tibrogargan, Tibberoowuccum and Beerburum area. This was part of the Federation Centenary Projects scheme. GMAN received \$52,000 from the Federal Government and \$36,000 from the State Government to complete the first stage of these trails. They were officially opened in December 2001.

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I EVENT DETAILS

See website www.glasshousetrails.com – link on www.runtrails.com

II PARTICIPATION

Entrants in all events may run or walk as long as they meet all the qualifying times and cut off times. Entrants in the 100 mile and 100 km individual events should have completed an ultra event of 50 km or more in the last two years. *It is the responsibility of 100 mile and 100 km individual entrants to submit adequate verification of the qualifying run with the race application form.*

ALL ENTRANTS MUST CARRY A WATER BOTTLE as there may be about ten kilometres between some checkpoints and competitors could miss the course markings and travel extra distance.

III COURSE AND TRAIL DESCRIPTION

For 100 mile course description see website

The trails used are mainly forestry roads and fire trails although some gazetted gravel roads are used in places. There may even be an occasional short bitumen section where extreme care will need to be taken. There are some eroded and undulating sections which require care.

1. Course Route: The runs will follow the course as shown in the details and on the map unless last minute changes are necessary as required by Queensland Parks and Wildlife Services or Forest Plantations of Qld.
2. Familiarity with the trail offers both physical and mental advantages during the event participants should make every reasonable effort to run as much of the trail as possible before race day.
Particular attention should be given to those sections which you expect to run in the dark , when your mental and physical energy may be lagging.
3. **As some of the trail may be traveled by night in the 100 mile and 100 km runs in September and the 50 mile event in May , each runner should carry at least two flashlights/headlamps with power sufficient to last hours.**
It is not recommended that you attempt to change batteries in the dark. This can be very difficult when you are tired, thus, a small spare flashlight/headlamp should be carried in your bum bag. (If your lights fail, wait for another runner, do not try to find your way in the dark).
If you are the very last runner, wait for the sweeper.

4. Since temperatures during the run can range from 10 degrees to above 30 degrees Centigrade, participants should be fully prepared for both extremes. Weather conditions can change rapidly and unpredictably. Although rain is unlikely, it is not impossible, so be sure to have adequate clothing at all times and stay well nourished and hydrated.
5. To inexperienced trail runners, please don't overestimate your ability because trail running is different to road running. For your own well-being and survival, we recommend that you do not attempt a training run without letting someone know exactly where you are going. Check with the race organizers Ian Javes (07) 5495 4334 or Bill Thompson (07) 5496 9490 to see if the trail is open or to organize a training run. Marking will not be completed until a few days prior to the run or even on the day of the run. We strongly advise people who are unfamiliar with the area to venture out with a 'native guide'. It is also important that ample fluids and food supplies be carried along on training runs as well as during the race itself. There are dry stretches of 10km or more.
6. Trail markings will consist of white surveyors tape tied to branches, Glasshouse Trail signs with red arrows on trees or posts (THESE NORMALLY INDICATE THE CHECKPOINT YOU ARE HEADING FOR) **and mainly arrows drawn in dolomite on the ground.** It is hoped that glow sticks and witches hats with reflectors will also assist the 100 mile competitors to find their way during the night. Run management does its best to provide an adequately marked trail but it is necessary for runners to continually be alert as they travel. On occasion, persons not associated with the event have altered or removed markings. A working knowledge of the trail, particularly of those miles which will be covered in the dark, will be of infinite benefit to the runner who attempts the trail.
7. If you have to drop out of the race at a point where your crew is unavailable, we will make every reasonable effort to get you to the finish or to the nearest major checkpoint that is still in operation, particularly if you are in need of medical attention. In non-emergency situations, you may have to wait awhile to be evacuated. Our principal responsibility is to put on a race, not to run a shuttle service for non-finishers, so please be patient.
8. While training or racing the trail, please be courteous to hikers, other runners and possibly horsemen. Collision on these narrow trails may be disastrous! If you wish to pass another runner, ask 'trail right' or 'trail left', before attempting to pass. Always run 'in control' and slow down when you reach blind corners, calling ahead to alert other travelers of your presence. Horses may be spooked by the sudden appearance of a runner, with serious consequences to the rider. In the interest of both safety and courtesy, it is wise to move off the trail to let oncoming horses pass. Runners should never pass a horse from behind without first notifying the rider. Courtesy and care should also be extended to slow moving hikers when approaching or passing. Often trail bike riders use the trails illegally, so if you hear them coming move off the track.
9. Dedicated volunteers will help out on each Glasshouse Trail Event. Many spend more hours out on the trail than do runners themselves. **Please be polite and thank these people when you meet them.** Without them there would be no Glasshouse Trail Events.

IV PERFORMANCE RULES

1. There will be no unofficial competitors.
2. Each competitor's official race number must be worn prominently on the front of the body and must be easily visible at all times.
3. Each competitor must complete the entire course under his own power in order to be eligible for a finishing award. **No physical or mechanical aids are allowed.**
4. Except in case of medical emergency, competitors may accept no aid or assistance in any form from anyone, including pacers and crews between checkpoints.
5. Each competitor must carry **all** of his own food, fluids, clothing and other supplies needed for use between checkpoints. All competitors must start with at least one water bottle of 500ml capacity or greater.
6. Competitors may not store supplies of any kind along the trail.
7. Littering of any kind is strictly prohibited. Littering will result in the immediate disqualification of the competitor in this year's race and for **all** future races. No cups, cans, bottles, wrappers, banana peels, orange peels, food and other articles may be carried from an aid station. Discarding clothing along the trail is strictly prohibited. **Please respect the natural beauty of our trails and the right of everyone to enjoy them. Littering could threaten the use of the trail.**
8. Each runner should carry a supply of toilet tissue. You are required to depart the trail when having to relieve yourself (bowel movement) and bury the waste and used toilet paper. *Toilets are available at Base(2), 1 and in Beerburrum township and at Lookout 589 (near 5).*
9. Competitors are responsible for the actions of their crews and pacers. A crew member is defined as *an individual who provides material to a competitor in an event.* A Pacer is defined as *'trail companion who may accompany a runner along designated sections of the trail (100 mile event only)'*. Pacers will only be allowed for 100 mile competitors after they have completed the western section and arrived back at Beerburrum.
10. Competitors, pacers and crews must comply with all race rules (Performance Rules, rules for Pacers, Rules for Crews) and all regulations and instructions issued by the Race Director in pre-race memos and the pre-race briefing. They must also willingly comply to all parking, traffic and access instructions on Race Weekend. Failure to do so may result in disqualification of the competitor, among other sanctions.
11. Participants must follow the marked trail at all times. **Any competitor departing from the official trail must return to the point of departure before continuing.**
12. Participants must refrain from any act of bad sportsmanship, including failure to let an overtaking contestant pass, or destruction or alteration of trail markings.

13. Each competitor must be checked **out** of all checkpoints or control stations. Spot checks may be established at random locations along the trail. Competitors not logged out of all checkpoints may not be credited with officially finishing the run.
14. All ultra competitors must submit to brief medical examinations (mainly weight) at designated checkpoints.
15. No prescription drugs may be taken during the event without specific authorisation by: (1) the runner's medical physician **and** (2) the event's medical physician.
16. Athletes found to have used banned drugs or medications will be disqualified from this event and will lose eligibility for future competitions.
17. Injury, dehydration, disorientation, blood appearing in a competitor's urine and other medical problems may also constitute grounds for medical personnel to remove a runner from an event.
18. No smoking will be permitted at any checkpoints or along the trail.
19. **All cut-off times established for the various checkpoints will be strictly enforced.**
Competitors must be checked out of the checkpoint by the cut off time. If race officials deem that a competitor/s is unlikely to reach a checkpoint by the cut off time they may shut down that checkpoint and arrange for the competitor/s to be picked up.
20. Any ultra entrant who is unable to finish the race must **personally** inform the aid station captain of the nearest checkpoint of his decision to withdraw. **He must give his race number** (issued at the pre-race medical check) **to the captain at that time.** The race number serves as official notice of a competitor's withdrawal from the race. Competitors who leave the course without turning in their race number will be classified as 'lost' thereby activating the search and rescue unit. Time spent searching for any such competitor will be billed to the athlete.
21. Violation of any rules or directives of the Glasshouse Trail Run may be grounds for disqualification. Rule Violations which are discovered after the event may result in retroactive disqualification or other sanctions.

The purpose of these rules is to ensure the run's integrity as a test of individual performance, providing equal conditions for all entrants.

V RULE VIOLATION PROCEDURE

Violation of any rules or regulations of the Glasshouse Trail Run is an extremely serious matter. Disqualification or other sanctions may result. Accordingly, alleging violation of a rule by another competitor is also very serious. Protests may be lodged using the following procedures:

1. Report any alleged violation to the competitor, his crew or his pacer as the incident occurs, if possible. Enlist a fellow witness to the alleged violation if at all possible.

2. Report the alleged violation in writing at the finish line to the Race Director, using the official protest form. All protests must be submitted by no later than 30 minutes after the scheduled finishing time of the event. Protest forms will include the name of the person who lodged the complaint as well as other specific data.
3. Both parties will be invited to discuss the complaint at a meeting of the Glasshouse Trail Run Protest Committee when the decisions about whether to withhold the alleged violator's award will be made.
4. A final resolution of the issue will be made by the full Glasshouse Run Board of Directors no later than two weeks after the race.

VI PACE RUNNERS - ULTRA

A pace runner is defined as a 'trail companion' who may accompany a runner along designated sections of the trail (100 mile event only). Pacers are allowed solely as a safety consideration for fatigued runners in the remote and rugged territory of the Glasshouse Trail. Absolutely no physical or mechanical aid may be given by the pacer to assist the runner over difficult sections of the trail (except in medical emergencies), and no food, fluids or supplies of any kind may be carried for the runner.

Pacers should be experienced trail runners in excellent physical shape and conditioned adequately to run 40km over rough terrain. Most pacing will be done during the dark hours or night and early morning, so pacers should be warmly dressed, used to running with flashlights and familiar with the trail. Pacers should be adequately supplied with flashlights, food and water. They may accept aid at the checkpoints.

Pacers must comply with all race rules and regulations, including the Performance Rules, Rules for Pacers, Rules for Crews and all instructions from Race Personnel. Failure to comply may result in disqualification of the runner, as well as other sanctions and will threaten the continued existence of the pacer tradition of the Glasshouse Trail.

VII RULES FOR PACE RUNNERS

1. A pace runner is any individual who accompanies an entrant for any distance greater than 100m at one time.
2. One pacer at a time may accompany along sections of the trail as follows:
 - (a) Runners aged 65 or older may have a pacer for the entire 100 mile distance.
 - (b) Pacers may not be used by other competitors until after completing the western section and arriving back at Checkpoint 2. Persons may not pace on mountain bikes.
3. Pacers must be at least 18 year of age (specific exceptions may be made in advance of the Race by the Race Director).
4. Each pacer must sign in at Beerburrum State School on Saturday.

5. Each pacer must wear the official identifying number that corresponds to the race number of the entrant he is pacing. The official pacer number must be transferred between pacers if duties for one runner are to be shared.
6. Each pacer must clearly identify themselves when passing through control points. It is extremely important the Race personnel know exactly **who** is on the trail and **where**.
7. Only one pacer may accompany a runner at a time and they cannot start pacing until the western section is completed.
8. Pacers must stay with their runners at all times, except in the case of emergency. If the runner withdraws from the Race and the pacer wishes to continue, he/she must remain at the aid station, until another runner enters the aid station and requests the services of a pacer. The pacer cannot continue on without an official race participant.
9. Changes of pacers may be made only at the following designated locations:
2 , 9 , 10 .
10. Pacers must enter and leave each aid station **with** their runners. They may assist with the re-filling of water bottles or replenishment of supplies while in the station, but may not come into the checkpoint ahead of their runners, or depart after their runners, in order to speed up the refueling process.
11. Pacers may not carry water, food, flashlights, shoes, clothing or any other supplies for anyone other than themselves. 'Muling' is expressly forbidden and will be the grounds for disqualification for the runner and sanction against the pacer from ever participating in the Glasshouse Run.
12. No mechanical or physical assistance may be given by the pacer to the runner to help negotiate difficult sections of the trail.
13. No smoking will be permitted at any of the checkpoints or along the trail.

VIII SUPPORT CREWS – 50 and 100 MILE

We strongly recommend that you bring someone to crew for you. Not only will a crew provide a psychological lift , but having one will ensure that you have the food and drink you prefer and changes of clothing along the way.

In the past, some support crews have created potentially hazardous conditions for run participants by interfering with checkpoint procedures and blocking narrow access roads. It is strongly urged, therefore, that runners attempt to 'double-up' their crews whenever possible, sharing transportation to the various checkpoints. See Section XIX for recommended support stations.

Crews should be familiar with all rules and regulations of the run, including the Performance Rules, Rules for Pacers and Rules for Crews. Everyone involved with the run must willingly comply with all instructions from race personnel at all points along the trail and its access routes or risk disqualification of their runner.

1. A crew member is defined as any individual who provides material support to a runner in the event.
2. Crews may meet runner or assist them only at those aid stations specifically designated for crews. Crews must wait to assist their runners until after the official check-in and medical evaluation (where applicable).
3. Crews must stay within a 100m radius of the aid station while attending to their runners.
4. Crews will be limited to one vehicle per competitor at all checkpoints.
5. Crews must always drive at safe speeds! No matter how fast a runner may be, it is possible for crews to arrive at all major checkpoints without racing at high speeds.
6. **Crews must never park in such a way to block traffic, access to the trail or checkpoint, or other cars.**
7. **No pets will be allowed at any of the checkpoints, anywhere along the trail, or at the finish line at the base.**
8. **No smoking will be allowed at any of the checkpoints, or along the trail.**
9. Crews must refrain from littering along the trail, and at the finish area.
10. Violations of any kind by crews, including but not limited to rule violations, disregarding access or parking instructions, or hassling officials or other race personnel, may result in disqualification of the crew's competitor, or other sanctions.

Competitors will be held responsible for the actions of their crews and pacers.

IX MEDICAL AND OTHER RISK FACTORS - ULTRA

These events are physically taxing and participation in them presents numerous medical risks - many of which can be extremely serious or even fatal.

Participation in these events is at the competitor's own risk. Although run management may have medical personnel at various points along the course, the inaccessibility of much of the trail may make it difficult or impossible for medical assistance to reach the competitor in a timely fashion.

Medical examinations are required of some ultra entrants at the pre-race registration. This examination will primarily involve the evaluation of vital signs (weight , blood pressure and pulse). It will not be a complete physical and participants are encouraged to see their own physician for such an examination (including a stress ECG) shortly before the run. Runners must show evidence of training for ultramarathon distances and should be knowledgeable about the stress effects attendant to participating in such events.

Vital signs will be checked at various points along the trail, subject to the discretion of medical advisor to the run. Weight loss will be one of the most important of the physiological criteria the

medical personnel will be evaluating. A loss of 3% of one's body weight indicates the serious dehydration may be imminent. The runner will be weighed and allowed to proceed, with fluids encouraged. A loss of 3 - 5 % of body weight will require a blood pressure and pulse check and closely scrutinize the runner, probably allowing him to proceed at a slower rate, drinking more fluids. A loss of 5 - 7% of body weight will require a blood pressure and pulse check. The runner will be required to stop and rehydrate back to the 3 - 5% weight loss range. The runner may then be allowed to continue at a slower rate and encouraged to increase fluids. A 7% loss of weight may be grounds for withdrawal from the run due to the increasing risk to impairment of body functions. It is the runners responsibility to make any decisions about their weight loss.

It is important for each entrant to recognize the potential physical and mental stresses which may evolve from participation in these events. Runners may be subject to extremes of heat and cold, hypothermia, dehydration, hypoglycaemia, disorientation and total mental and physical exhaustion. Run management and the medical staff strive to work with runners. They will do all they reasonably can to insure 'safe passage', but ultimately runners must understand their own limitation. Participants must continuously monitor themselves, and must know when to draw the line. This is one event where it is better to follow the dictates of your body - not your ambitions! Adequate physical and mental conditioning prior to the run is mandatory. If you have not been able to prepare properly, **do not attempt to compete.**

Competitors should also appreciate the risks associated with participation in these events. Actions may have to be taken on your behalf under extreme time constraints and adverse circumstances. We will make reasonable efforts to give responsible assistance where possible. Ultimately and primarily you are in charge, and you are likely to be solely responsible for creating your own crisis that we must respond to. Be careful, be responsible, and do not come even close to exceeding your own abilities and limitations.

In the event that a competitor requires emergency evacuation by ground ambulance or helicopter-ambulance, the runner assumes all financial obligations connected with the service. Race management is not responsible for any costs incurred.

Some of the main risks of the run, but certainly not all of them, are listed below. These should be understood and remembered by all competitors, both before and during the event. Please note that death can result from several of the risk conditions discussed below, or from other aspects of participation in the run.

1. RENAL SHUTDOWN

Causes of renal shutdown (kidney failure) have been reported in other ultramarathons. In questioning the individuals who have experienced this problem, most of the cases have occurred in participants who have relied on their own high carbohydrate-type drinks for their electrolyte replacement drink. Without going into the complex physiology of what occurs, apparently the high sugar and/or carbohydrate content of these drinks, when consumed in large quantities, has a blocking effect on the normal filtering functions of the kidneys, thus resulting in renal shutdown (kidney failure). Several of the participants in such events in the USA in recent years had to undergo kidney dialysis following the race, due to using these products, and failing to consume adequate additional fluid intake to help "flush the kidneys". Using these products only and no

solid foods is not recommended in the 100 miles event of the Glasshouse Trail Run. If not remedied, renal shutdown can cause permanent impairment of kidney function and even death.

2. HEAT STROKE

Heat illness and heat stroke are serious risks. These conditions can cause death, kidney failure and brain damage. It is important that runners be aware of the symptoms of impending heat illness. These include: nausea, vomiting, headache, dizziness, faintness, irritability, lassitude, weakness and rapid heart rate.

Impending heat stroke may be preceded by a decrease in sweating and the appearance of goose bumps on the skin, especially over the chest. Heat stroke may progress from minimal symptoms to complete collapse in a very short period of time. Accordingly, maintaining a proper pace is crucial. Remember that your muscles produce tremendous amounts of heat when running up and down hill. The faster the pace, the more heat produced. A light coloured shirt and cap, particularly if kept wet during the race, can also help. Full acclimatization to heat may require up to two months. Some degree of acclimatization may occur with workouts in warm temperatures over 10 to 20 days. We recommend training 90 minutes in 25C heat or greater, for 14 days shortly before the run if at all possible.

Runners will drink approximately one third or more of their body weight in fluids during this event. This means that an average 65kg runner will probably drink 25 litres or more of fluid, depending on the heat factor. In addition to drinking at checkpoints, runners will need to carry fluids to drink along the trail. (Carrying adequate food and fluids is equally important on training runs when larger supplies will be necessary due to the absence of aid stations). The way to accurately measure fluid intake and output balance is by weighing before and after training runs to familiarize yourself with techniques used during the run. All competitors must carry at least one water bottle at 500ml capacity or greater.

3. INJURIES FROM FALLING

Falling is an ever present danger on the trail, with potential consequences ranging from bruises and scrapes to broken bones or death. Much of the trail is narrow and often uneven, rutted, rocky, muddy, wet, dusty, slippery or all of the above. Even your best concentration and careful running may not prevent a fall. Runners should be constantly alert and should use extreme care to navigate the course.

4. EFFECTS OF COLD/HYPOTHERMIA

Hypothermia can strike very quickly, particularly when pace slows from exhaustion or injury. The major risk of this condition is when a hypothermic individual's core body temperature falls to 33.3C or below, the runner may become so confused that they will be unaware that the runner is in hypothermic state. At that point the runner is unable to take appropriate steps to remedy the situation.

Staying well nourished, adequately hydrated and appropriately clothed will help runners avoid the onset of hypothermia. It is imperative that runners have access to extra warm clothing

(sweatshirts, hats, gloves, etc.) through their support crews, drop bags, or both. The effects of hypothermia can be fatal.

5. WILDLIFE HAZARDS

Not serious but there may be a few snakes, spiders, etc so keep alert as to where you place your feet and hands, especially at night.

6. VEHICLE HAZARDS

More than 95% of the Glasshouse Trail is run on mountain trails and fire roads which are closed to vehicles. Nevertheless, there are often areas on the course where runners and pacers have to be watchful for automobiles. Illegal trail bikes and 4WD vehicles could be present in some areas. Roads may have to be crossed in a few places.

7. USE OF DRUGS

No drugs of any kind should be taken before, during or immediately after the run! Many drugs can increase the risk of heatstroke. A partial list of problem drugs include amphetamines, LSD, many tranquilizers and diuretics. There is little known about drug reactions with stress of this severity. Many common medications could also have adverse effects on the body's physiology.

8. RISKS ASSOCIATED WITH LOW SODIUM AND CHLORIDE COUNTS

Low sodium levels (hyponatremia) in ultramarathon runners have been associated with several illnesses requiring hospitalisation. Is important for long distance athletes to use fluids containing physiologic amounts of sodium and chloride to replace water and salts lost during exercise. **Water intake alone is not sufficient**, as water intoxication (dilutional hyponatremia) may result. This problem may in fact worsen after the race, as the non-electrolyte containing fluid which has been accumulating in the stomach is absorbed. Potassium replacement is also important, although levels of this ion change less with fluid loss and replenishment.

The best way to achieve proper electrolytes and fluid balance is to rehydrate with fluids containing proper amounts of electrolytes, as well as plain water. Potassium, while present in many electrolyte-replacement solutions, may also be replaced with the ingestion of fruit, such as bananas or oranges. Beer has very little sodium or chloride and should not be thought of as an electrolyte replacement fluid.

Electrolyte-containing fluids should be continued after the race until the gastrointestinal tract is fully functional, which may take several hours. Once the gut is working and rehydration has occurred adequately, the normal balance of thirst, hunger, digestion and kidney filtration will maintain the proper homeostasis of fluids and electrolytes.

9. DIFFICULTY IN GAINING ACCESS TO OR LOCATING INJURED PARTICIPANTS

As has been emphasised, much of the trail is remote and inaccessible by motor vehicle. Accordingly, in spite of the safety precautions instituted by run management which include radio communications, search and rescue personnel at some checkpoints, **there is absolutely no assurance that aid or rescue will arrive in time to give you effective assistance should you become sick, incapacitated or injured.** In some events in USA ambulances and other emergency vehicles have experienced difficulties in getting access over remote roads jammed with crews vehicles, and other delays have resulted from erroneous information regarding the condition or exact location of injured or ill participants.

10. GETTING LOST

Although run management endeavors to mark the course well, it is definitely possible to lose the trail. If you believe at any time that you may not be on the correct trail, **do not attempt to find your way across country.** If you are sure of your route, backtrack to where you last saw a trail marker and try to find other markers showing the direction of the trail. If you are unable to find your way, wait where you are. **This is doubly important** if you cannot find your way back to a course marker. Wandering randomly may take you farther from the trail and reduce your chances of being found. Runners, on occasion, have been temporarily lost, but by observing these rules, have always been found fairly soon.

If you do become injured, exhausted or ill, **stay on the trail.** You will be found there either by another runner, or by members of the sweepers who monitor the progress of runners during the event. Staying on the trail is vital. If you feel dizzy, disorientated or confused, do not risk falling. Sit or lie down in the trail until you recover or are found. An unconscious runner even a few feet off the trail could be impossible to find until it is too late. If you are assisted by individuals who are not associated with run management and you elect to leave the trail, you **must** notify the official at the nearest checkpoint of your decision to withdraw.

Although medical and other personnel will assist you when possible, remember that you are **ultimately responsible for your own well-being on the trail.** Only you will know how your body and mind feel at any given time. Monitor yourself during the entire race, and prepare yourself to drop out at the nearest checkpoints. It is important to remember the number of kilometres between them, and the fact that getting vehicles into these areas can be difficult, if not impossible.

X AID STATIONS

Perhaps the one thing that will stand out the most in memories of the competitors who participate at the Glasshouse Trail will be the incredible volunteers who work the aid stations.

The aid stations are well stocked with fluids and a variety of foods. The fluids that are generally available are water, electrolyte and coca-cola. The night aid stations will also have soup, hot coffee and tea. The foods that are generally available are salt replacement foods (potato and salt), energy gels, fruits (oranges, bananas, melons), biscuits, candies, etc. Several of the major aid stations will have sandwiches and some of the night stations will have beef stew and vegetable stew with potato.

There is still considerable debate as to whether or not certain paid medications such as Ibuprophen (Advil, Motrin, etc.) or Naprosyn can be responsible for kidney problems when used in abundance and/or under stressful conditions such as running a 100 mile race. Until the argument has been completely settled by medical research, we will not provide these medications at our aid stations. If you feel the need to have these medications, and are willing to assume the responsibility for their use, they can be carried in your bum bag, or placed in your drop bags.

XI CUT-OFF TIMES

Cut-off times and 'pace' times are shown in the course details for each event. Cut-off times are indicated as when the competitor exits the aid station; not upon entering it. Competitors ignoring the Cut-off times will immediately be disqualified and barred from future runs. Run management will not accept responsibility for competitors breaking this rule. The rule is instituted for the safety of all participants and is required by our search and rescue and communications personnel.

XII DROP BAGS

Run Management will provide transportation for drop bags to the locations specified in the course details (for ultra competitors only). This service is provided to aid crewless runners. Those with adequate support are asked not to overload our circuits unnecessarily.

Drop bags must be securely tied, labeled clearly with the runner's name and entry number, and deposited at the appropriate collection station established for each checkpoint as shown in the event details.

It is imperative that runners do not leave perishable items (bananas, fleshy fruits, etc.) in their drop bags. It is strongly recommended that warm clothing and an extra flashlight be placed in their drop bags that will be delivered to each of the night aid stations.

The drop bags will be returned to the base for that particular event as soon as the particular aid station closes. **It is the responsibility of runners to claim their drop bags.**

XIII CHECKPOINT DISTANCE AND CHART

See course details for each event.

XIV AWARDS

Glass house 50 (May)

All finishers will receive a commemorative pottery mug. The first three in each category will receive gold , silver and bronze medallions. 50 mile finishers will each receive a Finishers Medal. Random draws will be drawn while runners are on the course.

Beerburum Trail (July)

As for Glass House 50 in May.

Glass House 100 (Sept 8/9)

All Glasshouse 100 Trail entrants who finish in full accordance with run rules qualify for one or more awards given in recognition of their achievement.

1. The first male to cross the finish line within 24 hours in the 100 mile event will be winner of the Tibrogargan Shield, a perpetual trophy on which the victor's name will be engraved.
2. The first female to cross the finish line within 24 hours in the 100 mile event will be the winner of the Beerwah Shield, a perpetual trophy on which the victors name will be engraved.
3. The first male and female finishers in each category will each be awarded gold medals. Second and third place getters will receive silver and bronze medals.
4. All finishers who finish in under 30 hours for the 100 mile will receive a finishers medal. Gold for under 24 hours & silver for under 30 hours. 100km finishers will also receive a Finishers Medal. Any 100 mile entrant who completes thw western section but does not complete the 100 miles will be given a 100km finishers medal and time but will not be given a finishers place in the 100km event
5. All finishers in all events will receive a pottery mug. There are six different design mugs for the two shorter events and a larger mug in four colours for the ultra events.
7. **Random draws** - one lot for the Saturday runners (ultra) and one for the Sunday runners will be drawn while competitors are out on the course. Competitors should check the notice board at the finish.
8. If a person completes **ten** 100 mile events , they will receive a special 1000 mile polo shirt (purple) and a jug (instead of the mug).
9. Polo Shirts may be ordered by 100 mile and 100 km finishers after the event at a cost of around \$40-50.

XV HISTORY OF THE RACE

The Glasshouse Trail Events commenced in 1990 when Ian Javes from the Queensland Marathon and Road Runners Club (now Brisbane Road Runners) marked out 55k m of trail with advice and assistance from Allan and Phillipa Bolt.

Twenty eight competitors took part in three events over 55km, 35km and 10km.

1996 saw the first **100 mile** event at the Glasshouse Trail Run but the five starters all failed to finish. Seven persons started the 106km event and three finished. The first was Daryl Watts in a time of 14 hr 06 min 08 sec followed by Kerrie Hall, 20 hr 37 min 51 sec and Bill Thompson, 28 hr 55 min 59 sec. Don Wallace won the 58km race in just under 5 hours.

In **1997** eight entered the 100 mile event and three people completed the course. Graham Medill of Toowoomba was first to finish in 22hrs 46mins 22secs followed by Janine Duplessis from Washington State, U S A, in 23hrs 52mins 21secs. The other finisher was local custard apple

farmer, Bill Thompson, in 29hrs 32mins 43secs. Novice ultra runner, Wayne Walker of Grantham, won the 106km event in 13hrs 34mins 54secs with Caboolture walker, Kerrie Hall being the first female in a time of 18 hrs 55mins 7secs. Ken Stacey came from Brisbane to win the 58km in 5hrs 23mins 19secs with Kumi Kato being the first female in 6hrs 38 mins 27secs.

In **1998** twelve competitors started the 100 mile event with Graham Medill winning for the second time in 23hrs 06mins 23secs. Victorian Kelvin Marshall was second in 25hrs 45mins 11secs followed by the first female Carol LaPlant in 28hrs 55mins. The only other finisher was Kerrie Hall in 30hrs 13mins 54secs. Two Sydney visitors Mike Ward and Martin Fryer crossed the line together to win the 50 mile event in 9hrs 48mins 39secs followed by Geoff Williams of Caboolture in 10hrs 9 mins 41secs. Melanie Jonker was the only female to finish in a time of 16hrs 28mins 32secs.

Ken Stacey won the 52km event from Greg Barton and Ed Matterson in 4hrs 20mins 30secs with Poh Suan Neumann being the first female in 6hrs 35mins 36secs.

In **1999** the competitors enjoyed the best conditions ever. Eleven started the 100 mile event and Sydney zoo keeper, Paul Every was first to finish with Rainer Neumann, from Brisbane, second and Western Australian visitor Geoff Blyth, third. Local farmer, Bill Thompson, also finished the 100 mile event as did Carol La Plant, from Berkeley, California. Kerrie Hall finished the 100 mile but was about 14 minutes over the cut off time. The 50 mile event was won by Bruce Hargreaves and Natascha Costello was the first female to finish. Malcolm Buchanan won the 55km event with Sydneysider Dawn Tiller the first female. A relay category was added to the 100 mile run this year and the Sunshine Coast Tri Club were the winners in just over 12 hours.

Fourteen competitors started the 100 mile event in **2000** and eight managed to finish. Paul Every was again the winner but was challenged in the second half of the race by Martin Fryer both finishing in under 24 hours. Roger Guard was third and Kerrie Hall was the first woman to finish. Adam Barron won the fifty mile race from Ken Stacey and Graham Medill with Tracey Strain the first female. Malcolm Buchanan was once again the winner of the 55 km event from Darren Skillicorn and Rodney Ladyman with Miryam Zeschke the first female. The Ashgrove Rangers team set a record of just over 10 and a half hours for the 100 mile relay.

Eleven competitors started the 100mile event in **2001** with five finishing. The course record was smashed by Jonathan Worswick and now stands at 17:43:20. Kieron Thompson, Kelvin Marshall and Bill Thompson also finished followed by the only female Carol La Plant.

Eighteen entrants started the 100 mile event in **2002** and even though there was extremely hot weather ten of these finished the event in under the cut off time.

2003 was another year of hot conditions and the 100 mile event saw dual winners, Keiron Thompson and Walter Brumniach, for the first time although Rodney Ladyman was rapidly closing in on them towards the finish. Kerrie Hall was the only female to finish.

2004 saw a shift to a date a few weeks earlier in September, thus giving cooler conditions. Eleven of the 16 starters finished with novice runners Martin Schot and Rachel Waugh being the first male and female to finish.

2005 had the largest number of entrants (25) with sixteen finishing. David Waugh set the second fastest time ever in winning from Ian Wright and Phillip Murphy.

2006 had an increase to 26 starters in the 100 mile with 20 finishers, half of these under 24 hours. David Waugh ran the fastest time ever (17hr 16min) beating Phil Murphy and Martin Schot with Tamsin Barnes the first female.

2007 had 24 starters and 17 finished. Once more the 100 mile was won by David Waugh in a record time – 16:37:12 from Phil Murphy and Rachel Waugh. Rachel set a record time for women of 20:38:34. There had been considerable rain in the week before the event but it stopped just before the start of the event. The runners did have muddy sections to negotiate and a few waist deep streams to wade through.

XVI TRAIL RUNNING HISTORY

Far from being something new to mankind, trail running has its origins deep in the past.

Today information is transmitted in a fraction of a second using electronic devices. Before electronic devices, horse riders delivered news, but in ancient Greece the information carriers were the hemerodromoi, ‘day runners’. These were an essential part of the Greek army and travelled by foot over rugged trails and roads to gather information and pass on messages.

The day runners could traverse in the order of **one hundred miles** in a day if necessary and they did this without the benefit of modern footwear.

Pheidippides was one of these day runners. Legend has it that he carried the message of victory from the plains of Marathon to Athens and then dropped dead. This is fiction. Before the battle against the Persians he had run from Athens to Sparta (about 240km on trails and roads) in a vain attempt to enlist help for the battle. His run is commemorated each year by the Spartathlon, a race from Athens to Sparta. Day runners would cover in the order of 100 miles in a day but armies marched on their feet and only covered 10-20 miles per day. The ancient Olympics were originally designed to allow members of the Army to display their various skills. The long run was probably to allow the day runners to show their ability. The modern marathon is far too short to be representative of their skills.

There are at present 15-20 trail runs of 100 miles or longer in the USA, but very few of this length anywhere else in the world. Australia has had a number of shorter trail runs e.g. Six Foot Track, Cradle Mountain, Royal National Park, Bogong to Hotham but the Glasshouse Trail Run offers the first 100 mile trail run in Australia as well as shorter events.

If bicycle riders and horse riders take part in events on trails as well as tracks and roads, why not more trail running? The Atlanta Olympics sees the introduction of mountain bike riding events. Future Olympics could well see trail running events introduced.

XVII RACE WEEK AGENDA (Glass House 100)

FRIDAY – SEPTEMBER

4pm to 8pm - Race Numbers may be picked up at this time. Entrants in the 100km and 100 mile events for individuals could undergo their medicals if possible. A pasta meal will be available between 6pm and 8pm (as part of the entry fee for ultra runners but around \$10 for any family or friends) where runners can meet some of the other competitors and organizers. **A race briefing** will be conducted at 6 pm and **attendance is compulsory for** 100 milers and 100km or they must send a crew representative. Here the course markings and any difficulties and last minute changes will be discussed.

SATURDAY – SEPTEMBER

4 -5.30am Pre-race start check-in and medical for ultra runners (vital signs : pulse,weight and blood pressure to be taken and written on Race Number) at starting line at Beerburrum State School. Any runner not checked in will be disqualified. (Simple breakfast e.g. fruit, cereal, tea and coffee).

5.30am start 100 mile and 6.00am 100 km entrants.

10.00am start at CHECKPOINT 8 for **50km** entrants (no entrants on the day)

SUNDAY – SEPTEMBER

5.00–6.00am Pre-race check in and late entries (only if field limit not already filled) for 30km event at Beerburrum State School

6.00am 30km entrants bussed to Checkpoint 4 for start.

6.30am 30km start.

6.00 - 8.00am Pre-race check in and late entries (if field limit has not already been filled) for 12km entrants at School.

8.00am 12km entrants bussed to Checkpoint 4 for start. There may need to be two bus loads one earlier at 7.30am.

8.30am 12km start.

9.30 - 12.00 BBQ

11.30 am Cut off for all events. All non-finishers will be transported from their next checkpoint rendezvous to the finish line.

12 noon Presentation of awards.

XVIII FOOD

Friday evening.

Dinner - Pay when you order for non ultra (100 km and 100 mile) entrants and friends.

On Course

1. At some checkpoints drinks such as tea, coffee, coca cola, an electrolyte drink and water will be available at all times. Foods such as fruits (fresh and tinned), custard, soup with rice or potato, sandwiches, biscuits, sweets, cereals . See course details.
2. **At Start (Saturday)- Runners and** officials only.

Water, tea, coffee,electrolyte, fruits and cereals.

3. At Finish

1. Food will be available at the school from about 9am to noon on Sunday.
2. BBQ for all entrants and for any member of their crews for whom they have pre-paid. (\$7.00 each)

Note: Special foods and drinks of the perishable type cannot be catered for. Non perishables can go in drop bags. Crews (if available) may supply runners with the perishable type at checkpoints where crew are allowed access.

XIX CREWS INSTRUCTIONS & CHECKPOINT LOCATIONS

The following instructions on how to travel to the various checkpoints are provided to make crewing as simple as possible. Because access roads may be narrow and parking is limited, please obey any parking signs. Remember, run management has to utilise these same roads, as do the general public. If a true emergency should develop, lack of common courtesy by crew can lead to the immediate disqualifications of their runners. Crews must always observe safe speeds; there is adequate time to travel between major checkpoints and greet runners as they come in.

Note: Crewing is only allowed for ultra runners and relays at the checkpoints indicated in the event details.

CHECKPOINTS

1 MATTHEW FLINDERS PARK - crew access but not manned

From Beerburrum State School travel north along the Glasshouse Mountains Road about 2km and turn left into the Rest Area.

1a CAVES RD – probably only for short runs

Race management would prefer that crew vehicles do not access this checkpoint as it is on a fairly narrow gravel road. This checkpoint is only about 4 km from base. It can be accessed by going under the railway line at Checkpoint 1.

2 BEERBURRUM

This is the base for the Glasshouse 100 at Beerburrum State School.

3 TUNBUBUDLA - A

May be accessed by turning right into Beerburrum - Woodford Rd just through Beerburrum township and following for just under 3km where a dirt road (Old Gympie Rd) goes to the left and leads you to this checkpoint.

4 TUNBUBUDLA - B

May be accessed by following Beerburrum - Woodford Rd to the west from Beerburrum Township until the bitumen ends.

5 LOOKOUT 589

May be accessed from Beerburrum - Woodford Rd by taking a right turn onto Old Gympie Rd about 3km west of Beerburrum township then taking the first bitumen road to the left. The checkpoint will be about five hundred metres past the actual lookout on a gravel road , Connection Rd. The lookout can also be accessed from the base by following through the Glasshouse township onto Coonowrin Rd and turning left onto Old Gympie Rd and then taking the second bitumen road to the right.

6 HENNESSEY'S HILL

May be accessed by following the gravel Lookout - Woodford Rd from Checkpoint 5 towards the south west for about 3 km then taking a right turn (will be signed).

7 BLACK ROCK

May be accessed by turning right onto the gravel of Beerburrum - Woodford Rd just past Checkpoint 6 turn off and following this for 2-3km. Watch for a mango tree on the left and turn left here.

8 BRACALBA

Along Beerburrum – Woodford Rd between checkpoints 6 and 7 there is a turn to the south across a cattle grid just past where the road goes under the powerlines (gravel road). If you follow this for about 4 km you will cross a bitumen road (Raaens Rd) onto McConnells Rd (gravel). The Checkpoint is about one kilometre along this road. It can also be accessed by going to WOODFORD then turning left on the D'Aguiar Highway and turning left into Raaens Rd at the top of the D'Aguiar Range.

9 WILD HORSE

This can be reached from Beerburrum by turning east at the Matilda Service Station (about 5 km north of the Beerburrum turnoff)and following Johnstone Rd across the Pacific Highway (near Moby Vics Service Station) and turn right to the parking area for Wild Horse Mountain.

10 TIBROGARGAN CREEK

This is reached following a forestry road straight through to the east from the Johnstone Rd crossing of the Highway. Signs will then direct you to the checkpoint. You do a right turn about 1-2km along this gravel road.

Note: Forestry tracks must not be used by crews as traversing these requires a permit. (a limited number of permits can be issued , mainly to 100 mile crew)

XX SCHEDULED TRAINING RUNS

There will be some scheduled training runs over the Glasshouse trail on weekends starting from May. Details on these runs can be obtained by contacting Ian Javes (07) 54 95 4334 or email ijaves@caloundra.net

.These runs will be 15-40km.

XXI TRAIL RUNNING ADVICE

For inexperienced trail runners the following is advice on training for and competing in long trail runs.

1. MILEAGE and LONG TRAINING RUNS :

On the surface, a typical runner would assume that to prepare for ultra trail runs one must learn to run longer than the standard marathon. It is an easy assumption, for running long is the single most important training for ultra trail runs. Weekly mileage does not need to be greatly increased but one must build up to running a longer run once every 2 or 3 weeks preferably on trails.

Be wary of too much pavement or bitumen when increasing your mileage. These surfaces are much harder on your legs and many roads have a crown of some degree; and, when running against traffic, it is easy to develop hip or knee problems. Soft surfaces save your legs immeasurably. Fine, crushed rock pathways would be excellent on trails, which while soft, are also varied, strengthening different areas of your legs that would otherwise not be working on roads. If you have been used to a 30-35km run as being your long run when training for a marathon then you would need to increase this 5km at a time to around 50-60km. Of course the pace at which you do this long training run will need to be slower than your training pace for a 30- 35km training run for a marathon. What is being trained in such a long run ?

THE MIND: The mind is being trained through a learning process of involving subjection to major fatigue, and battling through a dozen reasons to quit. It is difficult for a novice to appreciate this struggle, but once a runner has made it through a powerful lesson has been learned and it doesn't have to be repeated every week. Tim Tweitmeyer who has won the Western States 100 Mile Trail Run a number of times rests on Friday and on Saturday (if he is not competing in a race that weekend) runs 50-60km on trails. Other days he runs distances between 10 and 20 km.

THE NERVOUS SYSTEM: It is easy to run when your legs are fresh, but when the glycogen is used up, feet are pounded and the muscles are sore, it is important to run with an efficient form. You can train your neuro- muscular coordination by training under those conditions. Maintaining running form while tired is a skill only gained with practice while running long.

MUSCLE FIBRE: Muscles have two basic fibre types, slow twitch (Type I) and fast twitch (Type II). Type IIb is fast twitch fibre that begins life as a power producer, but can be persuaded by lots of endurance training to sacrifice power for endurance. Is this muscle fibre conversion good or bad ? It depends. If you are fast enough to make the cut - offs and only want to finish an ultra trail run, then the conversion is beneficial. If you are a competitive runner who wants to minimize time to the finish, then it is bad. History shows that most top marathon performances are run by short distance runners who are relatively new to the marathon.

THE CONNECTIVE TISSUE: Muscle fibres exert force through connective tissue. Connective tissues are the non-contractile tissues which basically connect bone to bone (ligaments), muscle fibres to bone (tendons) and support the muscle fibres. The repeated stress of training will cause these structures to strengthen. They contain an array of nerves and blood capillaries (the latter supply the tissue with oxygen -rich blood). If the connective tissue is not strong enough to withstand the stress after many hours of running, efficiency will suffer. While long runs train the connective tissue, it also happens in shorter runs and cross training, such as weight lifting. Total weekly mileage is more significant than long run miles for the connective tissue training.

THE ENDOCRINE SYSTEM: The mind, nervous system, muscle fibres and connective tissues can possibly be trained for an ultra trail run without doing long runs repeatedly, but it would be very difficult to find a substitute that would properly train the endocrine system (glands which secrete chemicals into the blood stream for affecting control in other parts of the body). Multiple glands (pituitary, hypothalamus, adrenal) are active and secrete multiple chemicals (aldosterone, vasopressin, glucagon, insulin, adrenaline, cortisol, endorphins - just to name a few) that effect how we get through these long, stressful runs. The endocrine system is not fully stressed until the long run stretches over 3 hours. The endocrine system can strengthen with moderate training, but also can be pushed to the point of fatigue and collapse by too much stress. That is really what overtraining is about. Muscles recover rapidly from an ultra run, but the endocrine system may take many weeks to recover if too fully stressed. Too many long runs in a short time will push a runner into an overtrained state which will force a rest. Of course it is therefore important not to do a stressful long run in the few weeks prior to a competitive ultra.

THE DIGESTIVE SYSTEM: The long runs also enable the runner to test how their digestive system will handle various foods and drinks. A long trail run can not be completed on water supplemented with a little electrolyte / carbohydrate solution as can a marathon.

2.BASIC DIETARY GUIDES for LONG TRAIL RUNS:

There are few issues more critical to completing a successful ultramarathon than what the runner ingests during a race. Running any distance shorter than a marathon requires little more than water and perhaps some electrolyte mixed in a carbohydrate solution. Energy and fluid needs for ultrarunners far exceed those of the marathon. Intake requirements for ultrarunners fall into four categories: fluids, electrolyte, food and other supplements. Runners should look at each of these in planning for an ultra. The four groups overlap and are usually used in combination, but missing any single one can make for a miserable ultra run.

FLUIDS

“Drink early and often “ is standard advice on liquid consumption during an ultra. Runners can lose up to a litre of fluids per hour depending on weather conditions. Many studies have been done on sweat loss during exercise and replenishment of fluids. The general concensus is that 5% loss in body weight (mainly fluids) is the danger point, at which a runner should stop to replenish, returning his or her body weight to normal. The Western States 100 Mile Endurance Run in California issues the following guidelines for for monitoring weight loss (these are followed in the Glasshouse Trail ultras) :

- 3% loss in weight - The runner will be feeling fatigue and nearing exhaustion.
- 5% loss in weight - The runner is nearly exhausted and will be closely monitored by medical staff until fluids are replenished before being allowed to proceed.

- 7% loss in weight - Results in mandatory withdrawal from the run.

The key to maintaining weight is to take fluids **early** in the race. How much is required? The answer varies depending on weather conditions, running speed and body mass. Tim Noakes the author of *The Lore of Running*, says the most important factor is the runners's metabolic rate which is directly related to running speed. The rate at which we consume oxygen and use energy sources determines the metabolic rate and thus heat production. Since sweating is the primary method for dissipating heat, the faster the runner, the greater the heat loss. Noakes often mentions 500ml per hour as the basic replenishment rate but this is for sub marathon distances and training only. Thus in competing in an ultra, and even training for one, the replenishment rate is more likely to be in the order of one litre per hour.

Hyponatremia occurs when **too much** liquid is taken in by the runner. Although rare both officials and runners should be aware of the possibility of this occurrence. The runner will consume more than an adequate amount of fluid causing their blood sodium count to drop to dangerously low levels. This condition can be as harmful as dehydration and could result in a trip to the hospital, thus the need for proper electrolyte replacement.

Extra Advice from Medical Co-Ordinator

It is important to stress adequate hydration for 3 days before the race. This is especially important for people who are tapering and on a high carbohydrate diet because the carbo storage with reduced exercise can result in dehydration as water can be taken from the body to form glycogen resulting in dehydration if it is not replaced.

From what I have read, the important guidelines of the day appear to be:

- Stop drinking 2 hours before the race.
- Have a drink on the start line.
- Drink at regular intervals (at least 110ml every 15min or 250 every 30mins). It is also important to stress fluid consumption early in the race ie before the subject gets thirsty.
- Research suggests that gastric emptying is most effective when the fluid is cold.
- Having a proper drink is better than sipping as you go along, as a minimum volume is required before gastric emptying will occur and the fluid just sloshed around if small volumes are taken.
- A standard glucose electrolyte drink is recommended rather than just water.
- I would recommend the sports drink on the tables is made up to full strength, as if people want it weaker they can dilute it or drink a cup of water, but if they want it full strength and it is diluted, it is harder to get what they require without taking more fluid than they want. I would suggest you put ice (but count the volume as part of the water), as the full strength will taste better cold and the gastric emptying will be quicker if it is cold. Also ice in the normal water would be good.
- If it is very hot it is recommended that water is poured on the head/body to aid in cooling.

ELECTROLYTES

Electrolyte imbalance can not only impact on performance, it can be life threatening. Most people realize electrolyte replacement is important, but fail to realize how much damage an imbalance can cause in an ultramarathon. Runners with an imbalance can lose many of their motor skills and become disoriented. Electrolytes are essential to all living cells and through sweat, large amounts can be lost. Noakes suggests electrolyte loss is about 2 grams per hour (assuming a sweat rate of 1 litre per hour). In an ultramarathon this can result in the loss of 20-40 grams. Energy drinks contain some amount of electrolyte. It's best to compare drinks and choose one that contains more rather

than less and experiment in long training runs. Even these drinks can not supply sufficient for a long ultramarathon such as a 100 mile trail run. Foods such as crackers, pretzels, salty potatoes and soup are often supplied at aid stations in such long runs and should be used. If you are not sure that such salty foods will be available then you could easily carry some of the small packets of salt available at most fast food outlets.

FOOD - CALORIES

Ultramarathons such as 100 mile trail runs can not be completed without solid food intake as can shorter runs and marathons. Greg Barton spent a few hours preparing copious amounts of carbohydrate and electrolyte solutions before the start of the Western States 100 Mile Endurance Run but found that after covering a quarter of the race he ignored most of this went for solid foods. In a self supported ultra such as the Glasshouse Trail Run aid stations typically provide basic fare such as fresh and canned fruit, crackers, pretzels, sandwiches, cookies, soups, tea, coffee and soft drinks as well as energy drinks. There is usually plenty to choose from but only by experimenting will you find what best suits you. You may even find a food source that is successful in one race does not work in another. A constant battle for many ultrarunners is stomach distress during ultras. The reason it is such a common problem is the inability of the stomach to perform gastric emptying while running. Solutions vary, but the key is prevention.

Perhaps trying a plan such as obtaining 50% of your calories (kilojoules - kJ) from a liquid mix and 50% from solids may be worth considering. Karl King, an ultra race director in the USA, suggests targeting a regimen of kJ per mile dependent on the distance of the run. This formula is : 120kJ per mile for a 50km (30ml) run ; 200kJ for a 80km (50ml) run ; 240kJ for a 100km (60ml) run and 320kJ for a 160km (100ml) run. Runners pushing a hard racing pace may have to settle for kilojoules at a lower rate. The reason for this is that an increase in pace shunts the blood away from the stomach to the working muscles, which are demanding more oxygen, hence requiring a larger blood flow. It has also been suggested that concentration levels in energy drinks should be around 7% so it may mean that it will be necessary to dilute energy drinks supplied or have your own made up which could be delivered to certain aid stations. Some of the top ultra runners are capable of running races up to 100km with only the carbohydrates and electrolytes from liquid mixes but I have never seen anyone complete a longer ultramarathon successfully without taking solid foods. For runs over 50 miles King suggests that the food taken in will require some protein (5-8%) and fat (10- 15%) as well as carbohydrate.

OTHER SUPPLEMENTS

This includes such things as vitamins, aspirin or ibuprofen (brufen), amino acid supplements and caffeine. It is true that vitamins are lost in ultras. Energy bars do have some vitamins but the amounts vary greatly. Vitamins probably play an even bigger role after an ultra run when the immune system is in a weakened state. I have never worried about using vitamin or amino acid supplements in an ultra race even during a 1300 mile run in just under 18 days in New York but I have seen Yiannis Kouros, probably the world's best ultrarunner, taking vitamins at regular intervals in a 24 hour race in which he ran just over 280km. Brian Smith who is a top class ultra runner has used amino acid supplements and there are instances of other runners staging remarkable recovery during ultras after taking amino acid supplements. Caffeine is on the banned drug list but one would need to consume something like 20 cups of coffee or cola to exceed the limit set. I personally prefer to use coffee or cola only in the latter stages of an ultra race since caffeine is a diuretic, causing water loss and this could hasten dehydration if used too early or too frequently in an ultra race. Taking aspirin and other anti-inflammatory drugs is common practice

in ultras. It is not illegal but to some it is borderline and toys with ethical standards. I think this stance is a bit extreme (I use them - I have found them to reduce knee pain and in one instance Achilles tendon pain). One should however not abuse them because they may mask the 'real' pain of a more serious injury or even lead to kidney failure.

IN SUMMARY : Have a plan with built in contingencies, practice moderation and variety, be acutely aware of danger signals and remain in control of your situation. To complete an ultra run such as the Glasshouse Trail run will give you a great sense of achievement and is the next challenge for those who have tired of running the same marathons over and over.

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XXII HISTORY AND GEOGRAPHY OF THE GLASSHOUSE AREA

MOUNTAINS OF MYSTERY - Courtesy of *Stan Tutt*

Like guardians the Glasshouse Mountains dominate the scenic Sunshine Coast. In scores of magnificent views from the sea and range they are there — different in a thousand ways, yet the same.

An aura of mystery dwells in these strange mountains named by Captain James Cook R.N., on May 17th, 1770, as he sailed north along the Queensland coast.

As given by Archibald Meston their old native names were Bearwah, Coonowarrin, Bearburrum, Toomboomoodla, Teeborcaggin, Nuhroom, Turrawandin, Yooan, Birriebah, Ennee and Dalangdarrajin. The names varied in the three neighbouring dialects.

COOK'S JOURNAL - THE NAMING

In "The Genesis of Queensland", 1888, the following extract from Cook's Journal is given; "Thursday, 17th May (1770)

.....however, if any future navigator should be disposed to determine the question whether there is or is not a river in this place, which the wind would not permit us to do, the situation may be always found by three hills, which lie to the northward of it, in the latitude of twenty. six degrees fifty.-three minutes. These hills lie but a little way inland, and not far from each other : they are remarkable for the singular form of their elevation, which very much resembles a glasshouse, and for this reason I called them the Glass Houses : the northern most of the three is the highest and largest ; there are several other peaked hills inland to the northward of these, but they are not nearly so remarkable....."

FLINDERS LANDS

Twenty-nine years passed before European eyes again gazed on these strange mountains. On 16th July, 1799, the sloop “Norfolk”, Captain Matthew Flinders, landed a party on the island now called Bribie.

The sloop was beached for repairs in Pumicestone Channel at a point now known as the White Patch.

On 26th July, 1799, Matthew Flinders, the Sydney native, Bongaree and two unnamed sailors climbed the mountain which rises from the Bruce Highway at Beerburrum township, being the first Europeans to climb one of the Glasshouse Mountains.

The party camped the night at the site of the present historic Rest Area on the southern bank of Tibrogargan Creek. Next day, failing to climb the cliff of Tibrogargan, they returned to the sloop in Pumicestone Channel. Archibald Meston records that on the way back they shot the first known specimen of the swamp pheasant.

BEERWAH’S ANCIENT LEGEND

When you reach the Rest Area at the base of Beerwah step quietly from the car. Within a minute a strange atmosphere from the mountain seeps into the mind. A wordless thought, a sense of time, comes from the ancient past and stretches into the endless future. It can be felt, yet hardly expressed. The legendary curse of Beerwah may have weakened over the years as more and more climbers reach the summit, but it is recorded that Andrew Petrie, the first white man to climb Beerwah, despite warnings from the aborigines, was blind for the final 24 years of his life. The aborigines declared that the spirit of Beerwah had caused the blindness so that Petrie never again would see his way up the mountain. Today there are distinct trails up the slopes of Beerwah, worn by the feet of climbers.

FIRST ON COONOWRIN - (CROOKNECK)

Aborigines believed that an evil spirit existed on the summit of Coonowrin, waiting to devour those who intruded. It is likely that the first white man to climb forbidding Coonowrin also was the first human to stand on the summit. Now pineapple farms adjoin the roads. Rows of bristling plants reach to the native forests still standing at the base of the ancient mountains. Someone with vision beyond his time ensured the public ownership of these mountains, and the preservation of the surrounding forests.

On 11th March, 1910, Harry Mikalsen, No 1177, Royal Australian Artillery, climbed Coonowrin and flew a flag from the summit. Born within view of the Glasshouse Mountains he climbed Coonowrin four times during 1910-11. In May, 1912, a party of six including three sisters, climbed Coonowrin, returned to Bankfoot House for lunch at 1.45pm, then cycled back to Brisbane, reaching home at 10.15 pm.

THAT FEELING OF MYSTERY

Bankfoot House still stands beside the Old Gympie Road. Drive through the township of Glasshouse Mountains to see this historic old house and experience that feeling of mystery which Archibald Meston described in 1895 in these words :

“ Each stands in gloomy isolation, silent and alone. One mighty mass of rock faces the railway line, cliff fronted, savage, defiant, towering majestically into the clear blue sky, the wild rough

stone face all scarred and caverned by the rains and tempests of ten thousand years. Through the treetops you behold transitory glimpses of Beerburrum's lone companions, vast pillars of rock and broken columns, standing there as ruined fragments surviving the wreck of "gray annihilation", looking out far over the treetops upon the vast ocean beyond, unspeakably weird in their mournful solitude, unutterably sad in their voiceless silence and irremediable decay. So they stand there, as Cook saw them from the deck of his vessel, off Cape Moreton, 124 years ago ; as Flinders saw them, as the wild sons of the pathless woods beheld them far back across the dim old centuries in times long buried in oblivion ; and as the stars alone shall see them far hence when -

Sheer to the lowest gulf each peak is hurled

The last sad wreck of a devoted world.

The wild savages who roamed the pathless forests and sang their peace songs and war songs beneath the shadows of those grey trachyte rocks, cores of the old volcanoes, have vanished forever bequeathing to us,

as their last legacy, only the names of those immortal rock sculptures from the studio of mighty Nature".

FOR A FAR VIEW

For a complete view of the Glasshouse Mountains drive through the township of Landsborough and up the range to Mary Cairncross Park. On a clear day this view is magnificent.

Even at a distance these mountains suggest legends.

- Stolid **Beerburrum** - now guardian fire watcher of the fine state forest of exotic pine.
- **Tibberoowuccum** - Little wrinkled old granny, sitting beside her brooding son.
- Brooding **Tibrogargan** - the crouched watcher of the ages.
- The rounded twins - **Tunbubudla** - young women, aloof and meditating.
- **Beerwah** - solid and powerful, defying the winds and Time. Shedding summer storms and winter rains from the cape of fluted stone.
- **Coonowrin** - (Crookneck) - the Ancient who twisted to look at Eternity - and stayed twisted.
- **Ngungun** - a bulk of stone and trees where eagles nest. Place of native legend where Jidigindi the Wagtail gossiped about the lovers Boolguroo and Wongo. It is said that the lover's cave, the cliff, and the spring into which Boolguroo was changed, are there to this day, and that on a starry night, if one looks at the southern sky from the foot of Ngungun, the two holes in the sky, through which the lovers escaped, may still be seen. In the 1970's the naked walls of a quarry eat into Ngungun. What of our next 200 years.
- And the **Coochin** twins - which seem company to themselves.

All these can be seen and photographed from the entrance to Mary Cairncross Park. They can also be viewed from the Glasshouse Mountains Lookout which is accessed by following Coonowrin Road out of the Glasshouse township. The Glasshouse Mountains provide scenic adventures and memories forever.

MODERN GLASSHOUSE

Much of the present Glasshouse area is covered with exotic pine plantations controlled by the Forest Services, part of Department of Primary Industries. The Wild Horse Mountain Lookout has notice boards which explain the steps in the management of these forests. This lookout is accessed off the main highway north from Brisbane.

There are many farms in the area producing fruits such as pineapples, custard apples and avocados and in more recent times Macadamia nut farms have become more prominent in the region.

XXIII ABORIGINAL LEGEND

The legend of the Glasshouse Mountains in Aboriginal folk stories runs :

Now Tibrogargan was the father of all the tribes and Beerwah was his wife, and they had many children. Coonowrin, the eldest ; the twins, Tunbubudla ; Miketeebumulgrai ; Elimbah whose shoulders were bent because she carried many cares ; the little one called Round because she was so fat and small ; and the one called Wild Horse since he always strayed away from the others to paddle out to sea. (Ngungun Beerburum and Coochin do not seem to be mentioned in the legend) One day when Tibrogargan was gazing out to sea, he perceived a great rising of the waters. He knew then that there was to be a very great flood and he became worried for Beerwah, who had borne him many children and was again pregnant and would not be able to reach the safety of the mountains in the west without assistance.

So he called to his eldest son, Coonowrin, and told him of the flood which was coming and said, “ Take your mother, Beerwah, to the safety of the mountains while I gather your brothers and sisters who are at play and I will bring them along. “

When Tibrogargan looked back to see how Coonowrin was tending to his mother he was dismayed to see him running off alone. Now this was a spiritless thing for Coonowrin to do, and as he had shown himself to be a coward he was to be despised.

Tibrogargan became very angry and he picked up his nulla nulla and chased Coonowrin and cracked him over the head with a mighty blow and with such force that it dislocated Coonowrin’s neck, and he has never been able to straighten it since.

By and by, the floods subsided and, when the plains dried out the family was able to return to the place where they lived before. Then, when the other children saw Coonowrin they teased him and called, “ How did you get your wry neck — How did you get your wry neck? “ and this made Coonowrin feel ashamed.

So Coonowrin went to Tibrogargan and asked for forgiveness, but the law of the tribe would not permit this. And he wept, for his son had disgraced him. Now the shame of this was very great and Tibrogargan’s tears were many and, as they trickled down they formed a stream which wended its way to the sea.

So Coonowrin went then to his mother, Beerwah, but she also cried, and her tears became a stream and flowed away to the sea. Then, one by one, he went to his brothers and sisters, but they all cried at their brother’s shame.

Then Tibrogargan called to Coonowrin and asked why he had deserted his mother and Coonowrin replied, “She is the biggest of us all and should be able to take care of herself.“ But Coonowrin did not know that his mother was again with child, which was the reason for her grossness.

Then Tibrogargan put his son behind him and vowed he would never look at him again.

Even to this day Tibrogargan gazes far, far out to sea and never looks at Coonowrin. Coonowrin hangs his head in shame and cries, and his tears run off to the sea, and his mother, Beerwah, is still pregnant, for, you see, it takes many years to give birth to a mountain.

XXIV ACCOMMODATION

For those competitors who desire to spend the weekend or longer in the Glasshouse area a summary of some of the accommodation available in the area between Caboolture and Maleny is given.

GLASSHOUSE

- a) Beerwah Motor Lodge - RACQ 3 star,
Glasshouse Mts Rd - about 14.6km north from
Beerburrum - 5 units (07) 54941911.
- b) Beerwah & Glasshouse Mts Motel - Glasshouse Mts Rd – about 7.8km north of Beerburrum- 9
units,
(07) 54 969900.
- c) Glasshouse Mts Holiday Village - Glasshouse Mts Rd - about 4.5km south of Beerburrum -
vans, van sites, tent sites. (07) 54969338.
- d) Glasshouse Mts Tourist Park – about 2km north of Beerburrum.
Cabins , vans , van sites , camping. (07) 5496 0363
- e) Beerburrum Motel – only a little over 1km north of Beerburrum
(07) 5496 0216
- f) Ecolodge – on Barrs Rd about 5km from Beerburrum – 5493 0008

CABOOLTURE - About 20km south of Glasshouse.

- a) Caboolture Motel - 4 Lower King St, 18 units,
ph (07) 54952888.
- b) Sundowner Hotel/Motel - cnr Bribie Is Rd and
Bruce Highway, (07) 54958666.
- c) Morayfield Hotel/Motel - 146 Morayfield Rd, (07) 54952722.
- d) Caboolture Caravan Park - junction Bruce Hwy and
Bribie Is Rd, Cabins, Van sites, tent sites,
(07) 54951041.

LANDSBOROUGH

Landsborough Pines Caravan Park - Glasshouse Mts Rd - about 10km to north of Sportsground -
cabins, van sites, tent sites. (07) 54941207.

MALENY - Dairying area, overlooking Glasshouse Mts. Bush walks, horse riding, scenic drives,
pottery, art and craft, Baroon Pocket Dam, Mary Cairncross Park, Gardiner's Falls. About 20km
from Glasshouse Sportsground.

- a) Maleny Loggers Rest Motel - Landsborough - Maleny Rd, 10 units, (07) 54942944.
- b) Maleny Hills Motel - Montville Rd, 5 units,

Brummiach, Walter									22:58:12				
Cassidy, Kevin			DNF										
Collins, Tony	DNF	DNF											
Coleman, Terry													23:51:32
Commins, Louis										27:24:51	26:09:49		DNF
Dermody, Charles (USA)					26:24:11								
DuPlessis, Janine (USA)		23:52:21											
Every, Paul				23:28:36	20:31:58				22:44:38	25:54:09	23:22:05		
Fryer, Martin				DNF	20:58:35								
Greenhill, Sean					DNF	DNF	27:39:26	27:11:47	28:56:52	28:28:01	27:37:56		
Gregory, Wayne											21:23:51		
Guard, Roger					24:15:00		DNF			23:39:03	20:46:28	21:24:45	
Hall, Kerrie				30:15:49	28:36:53	DNF	DNF	30:02:08	DNF	DNF			
Hargreaves, Bruce	DNF												
Harvey-Jamieson, Susannah													27:23:20
Hermann, Jan							25:57:43	27:41:30	26:40:01				
Hewat, Andrew									DNF	26:39:42	22:38:36	26:22:29	
Hewitson, Paul (NZ)										23:33:00		23:07:56	
Howes, Tony			DNF		28:41:55		DNF						
Javes, Ian							DNF		27:50:03		29:40:27		
Johnson, Andrew													22:15:18
Kaless, Will											28:26:31		DNF
Kato, Kumi				DNF									
Ladyman, Rod								23:18:24	23:45:34	DNF	23:30:00	22:55:16	
LaPlant, Carol (USA)			28:55:00	29:08:22	DNF	28:27:11	29:39:19						
Lebish, Roger					28:49:26								
Lewis, Lyn							25:09:35						
Lindsay, John					DNF		DNF			29:36:09	DNF		
Lockwood, Glenn											29:40:18		
Lovris, Michael													22:48:28
Malcolm, Stuart			DNF										
Marshall, Kelvin			25:45:11			22:34:50	24:58:42			26:31:14			
Mason, Brendan										26:25:03	DNF		
McCormic										28:48:4	DNF	28:44:4	

k, Richard										0		3
McKinnon, David							DNF	28:36:20				27:23:20
Mead, Lawrence					DNF	DNF	28:33:05					
Medill, Graham	DNF	22:46:22	23:06:23	DNF			26:14:46					
Menard, Bill (USA)	DNF											
Moloney, Nic									DNF	26:28:50	21:44:35	DNF
Murphy, PHILIP										21:43:45	20:21:51	19:39:20
Neumann, Rainer				26:07:11	27:14:14							
Raftery, Joe										28:16:14	DNF	
Schot, Martin									21:08:50		20:23:45	
<i>Smith, Rachel</i>		DNF										
Stanley, John	DNF	DNF										
<i>Thibeault, Suzi</i>		DNF										
Tiller, Kevin		DNF				DNF						
Thompson, Kieron						20:43:29	21:53:26	22:58:12	DNF			
Thompson, William		29:32:43		28:37:37	DNF	28:04:52	29:26:21	29:06:26	29:32:03	DNF	29:40:27	29:28:02
Turner, Tim											23:22:05	26:32:38
Walker, Wayne			DNF							25:30:51		
Ward, Mike				DNF								
Ware, Robert												
Watts, Daryl		DNF									24:18:12	
Waugh, David									DNF	18:17:09	17:16:46	16:37:12
<i>Waugh, Rachel</i>									25:25:24			20:38:24
Williams, Geoff									26:37:20	DNF		
Worswick, Jonathan							17:43:20					
Wright, Ian								23:49:02		22:11:36	19:37:52	22:15:18
<i>Bolt, Phillipa</i>							DNF					
Holley, Mark							DNF					