

ELECTROFISHING

Electric fishing is a method of catching fish in rivers and small lakes for surveying fish and macro invertebrate populations. Executed properly it does not harm the fish, but only stuns them for a short time. The operator carries a powerpack on their back and has a wand with an anode on the end. Fish are attracted to the anode and are momentarily stunned. They may then be caught in a net.

Because of the high voltages used, there is an **electrocution hazard**; read the ENV Use of electricity in the field document in conjunction with this one.

As this work is conducted in streams or rivers, the associated **water hazards** exist; read the ENV rivers, streams and wading document in conjunction with this one.

There are many safety features incorporated in the equipment but the operators need to be trained and certified.

These machines are potentially lethal if used incorrectly.

Health & Safety

All EFM operators must be signed into the Health & Safety Register.

Primary Safety Rules

1. Electrofishing Machines can only be operated by a certified operator.
2. There must be at least 2 trained persons present, one of which must be a certified operator.
3. There must be at least two certified First Aiders present.

Operational Safety

1. All operational procedures will be familiar to certified operators and are documented in the Operation Manual.
2. Always check machine and safety interlocks at the waterside before using.
3. Always start at the lowest voltage setting.
4. Do not work in the rain.
5. Wear neoprene or rubber waders that have been tested for leaks
6. Wear electrical rated insulating linesman gloves with tough overgloves for tear protection.
7. Nets and other tools must have nonconductive handles, not covered metal.
8. Ensure that bystanders stay at least 20 metres away and keep out of the water
9. Persons with pacemakers must be kept away.
10. The safety of workers and possible spectators is paramount – if in doubt, stop fishing.
11. The machine must be tested by NIWA once a year.
12. The operator must have a stable footing before operating instrument.

Additional Safety Requirements

All field work must be done in accordance with the following School guidelines;

- Field Safety Guide, and
- River, Streams, and Wading.

Ethical Considerations

- Always use the lowest possible voltage setting to avoid unnecessary damage to any species.
- Keep physical damage to the environment to a minimum.
- Consent or permits from landowners must be sought where ever possible.

This is a School guideline document developed in accordance with University Health and Safety policy and pertains to all staff, students, and visitors of the School of Environment at The University of Auckland.