

# 78-080 Fieldmaster® Mighty Grab

## Instructions and Maintenance

### Background:

The Mighty Grab™ is designed to take repeatable, reliable, minimally disturbed benthic (bottom) samples time after time in bottoms free from vegetation with intermixtures of sand, stone, and other coarse debris. Its stainless steel body and arms are rigid and strong enough to provide great durability. Designed to be used by teachers, students and volunteers, this **Fieldmaster®** grab is not intended to be a substitute for an Ekman or Ponar® available from Wildlife Supply®, our sister company.

### Warranty and Parts:

We replace all missing or defective parts free of charge. For additional parts, we accept Mastercard, Visa, American Express, checks, and purchase orders from educational institutions. All products are guaranteed free from defect for 90 days. This guarantee does not include accident, misuse, or normal wear and tear.

### P/N 24-8080

© Science First®/ Morris and Lee Inc. Science First®, Wildlife Supply®, Fieldmaster® and Mighty Grab™ are registered trademarks of Morris & Lee Inc. All rights reserved.

### Safety:

#### Safety Suggestion #1:

If in a boat, be sure to keep the boat in proper balance at all times. Lifting the Mighty Grab™ in to the boat, dumping its contents, and washing those contents may require leaning over the side of the boat.

#### Safety Suggestion #2:

The movement of the scoops can cause injury to fingers or hands. Be sure to pay close attention to how you pick up and hold the Mighty Grab™ as it may unexpectedly swing open or closed.

### Preparation:

#### Using the extension handle:

*Note:* This is the preferred way to use the Mighty Grab™ as it allows you to firmly press the scoops into the bottom surface.

1. Fully open the grab and insert the small square-connecting shaft protruding from the side near the bottom of the extension handle through the two aligned square tubes on the arms of the grab.
2. Attach the spring clip that is threaded through to the rope to the eye loop on the opposite side of the base of the handle.



*See Figure 1.*

#### Using the rope:

*Note:* This is an alternative methods allowing for deeper water sampling.

1. Fully open the grab. Disconnect the spring clip from the extension handle (if it is connected) and connect it to the loop on the "L-shaped" clip that is attached to the rope on the line winding float.
2. Thread the short arm of the "L-shaped" clip through the two square tubes on the grab's arms.
3. Lift the entire mechanism by the rope noting that the grab will close slightly.
4. As long as tension is kept on the rope, the clip will remain in place.

*See Figure 2.*

### **Operation:**

#### Via handle:

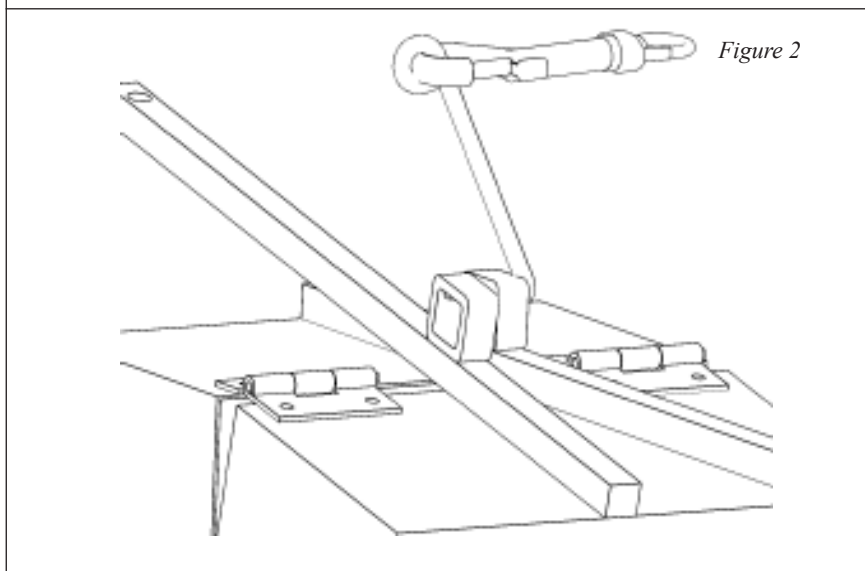
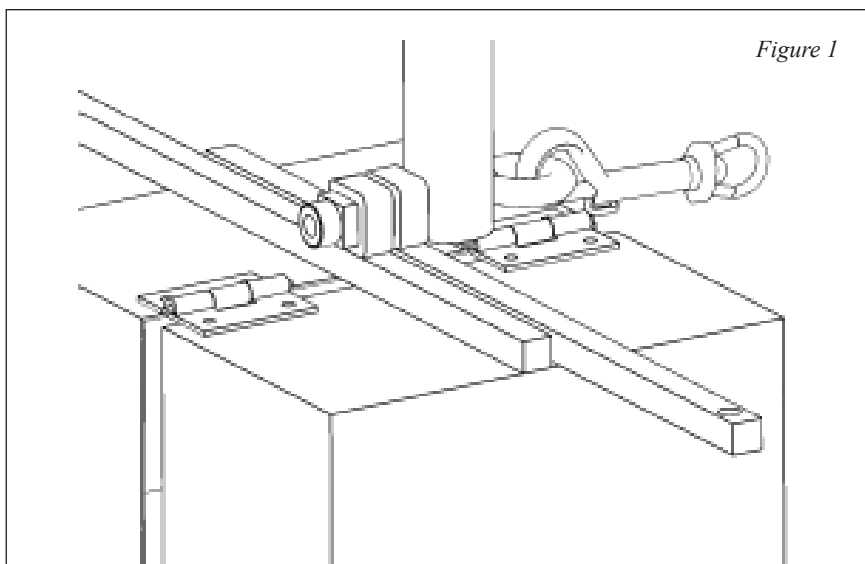
1. Lower the grab to the desired sampling spot on the bottom.
2. After contact is made with the bottom surface, press the handle down to embed the scoops into the material.
3. Slide the handle to the side to disengage the square-connecting shaft at the base of the handle from the grab.
4. Lift the handle to close the grab and bring the sample to the surface.

#### Via rope:

1. Gently lower the grab to the desired sampling spot on the bottom.
2. when it feels as though the grab has struck the bottom surface, allow 1-2 feet of rope to continue to be fed off the line winding gloat. This will help to make sure the clip releases from the grab.
3. Raise the grab to the surface by reeling the rope back onto the boat.

*Note:* One way to be surer that the clip has disengaged is to make a note when the grab hits the bottom and then make sure that an extra foot of rope is raised before the tension (the weight of the grab) is felt. This "extra" rope length shows up after the clip has disengaged from the grab.

(The Mighty Grab™ is intended for student use only. For professional research sampling equipment, contact our sister company Wildlife Supply® at [www.wildco.com](http://www.wildco.com).)



### **Maintenance:**

#### Daily cleaning:

1. Thoroughly rinse with fresh water to remove any residue of chemicals after every sampling session, using particular care after contact with- salt or acid water.
2. Be sure to clean the space at the top of the grab, between the two scoops, removing all dirt and debris.

Keep lightly oiled and/or greased.

1. Hinges can be lubricated with automotive grade oil or grease.
2. Clean and adjust for smooth operation.

#### Storage:

1. Never store any aquatic sampling equipment, instrument, or device while wet or damp.
2. Always allow to air dry completely otherwise mildew or rust may form.