

# Elver Floating Collector: Specification Sheet

## Physical

Dimensions of Assembled Collector:  
12 ft long, 10.5 ft wide, 5 ft high

Dimensions of Dis-Assembled Collector -  
Transport Mode  
(divides into two sections of similar size)  
12 ft long, 5 ft wide, 5 ft tall

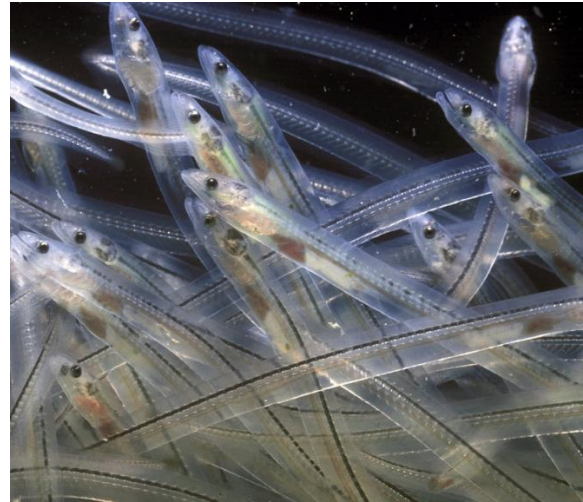
Covered area producing shade  
138 sq ft

Two Identical Ramps  
~30° angle, 10.5 ft wide, 3 ft long  
(composed of 32 EF-16 plates per ramp)

Portion of Ramp below water level  
~1/3 or 1 ft

Portion of Ramp above water level  
~2/3 or 2 ft

Typical elver climb time from out of water  
to ramp crest < 30 seconds



## Water flow

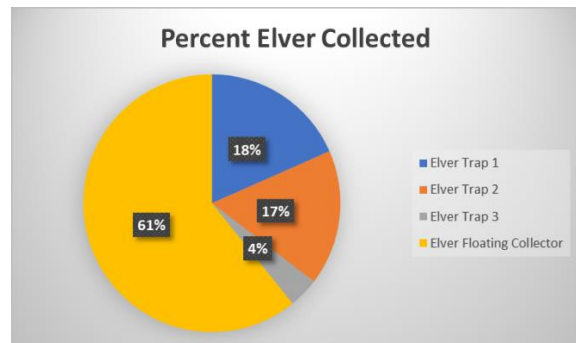
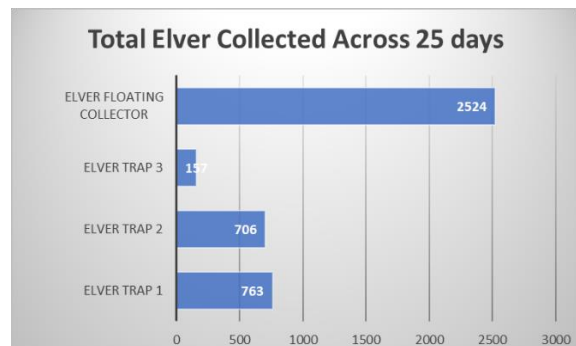
Water Pump  
~124 gal/min (7.8 liters/sec)  
Flow rate across each EF-16 plate  
1.1-1.6 gal/min (0.07-0.1 l/s)

## Power requirements

Water Pump  
Single phase, 110V, 13A, ~28 lb

Example of Effectiveness of the Elver Floating Collector Compared to three Pipe Collectors, 2018 Study River Göta älv, Sweden

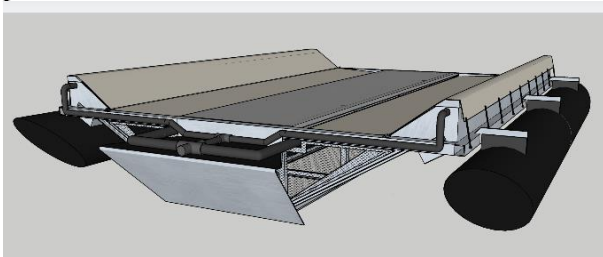
<https://www.whooshh.com/elver.html>



## Revolutionary Elver Upstream Floating Collector Design Components

**Floating** – Two pontoon floating structure allows versatility of placement in the waterway where elver congregate. In addition, the floating design enables standardization of attraction flow and climbing distance regardless of river fluctuations. Easily removed from waterway for winter storage, extending product life.

**Nose** – Redirects river flow creating a central channel through the collector that facilitates elver ramp approach via creating slow-moving backwater over which supplemental directed attraction flow is provided.



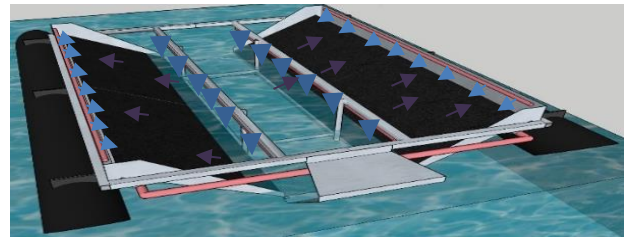
**Ramps** – Positioned perpendicular to river flow, the elver do not need to overcome the river flow rate to begin climbing up the ramp. The ramp length is standardized to a short distance of ~3 feet, reducing climb time, stress and energy reserve use required to climb and pass over the ramp crest. Two ramps, one on each side of the collector, with a width of 10 feet, extends the opportunity for the elver to locate the ramp ~16 times, increasing use efficiency.



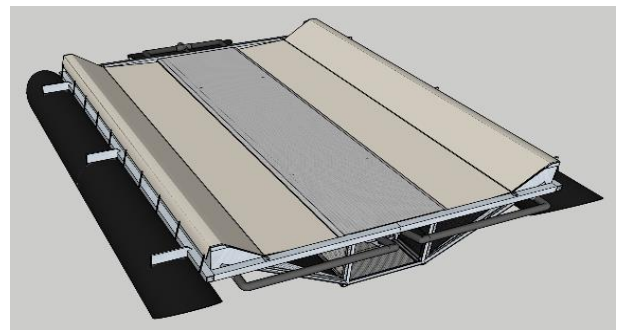
**Climbing Substrate** – EF-16 is a proprietary climbing substrate designed for increased ease for elver navigating a climb, providing features that

facilitate rest during the climb and variation of flow stream.

**Attraction and Water Flow** – Multiple flow dispersal points (blue arrows). Total attraction flow of ~66 gal/min directed down into the central channel. Water flow positioned at the top of each climbing substrate ramps at 25 gal/min facilitating migration attraction of elver up the ramp.



**Collection container** – Elver pass over the ramp crest into an enclosed collection channel. The elver flow with the small stream through the channel and into the collection trap positioned underwater. The trap is perforated to allow continual fresh river water flow through the trap. The collection container is subsequently manually emptied and elver transported to release locations.



**Cover** – The collector is fully covered from pontoon to pontoon creating a large, 138 square foot shadowed area. Elver are attracted to the dark environment. Successful elver collection in both day and night time hours have been documented. The cover also minimizes predation.

