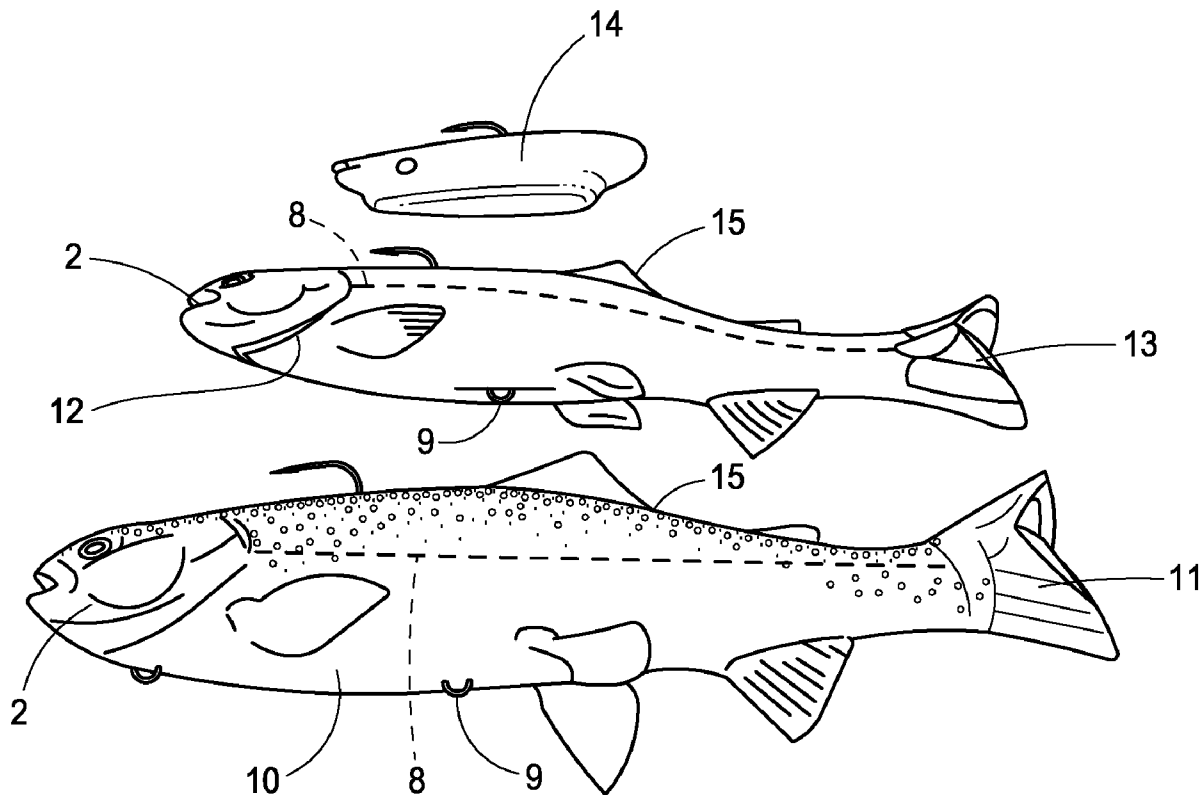


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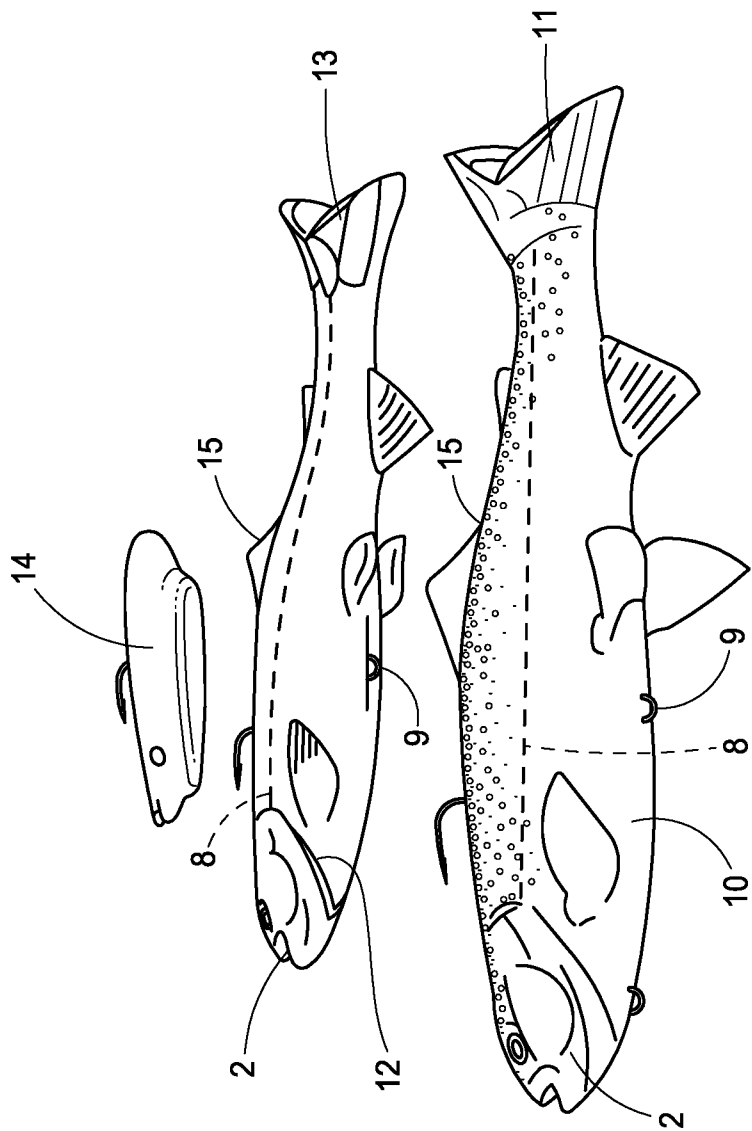
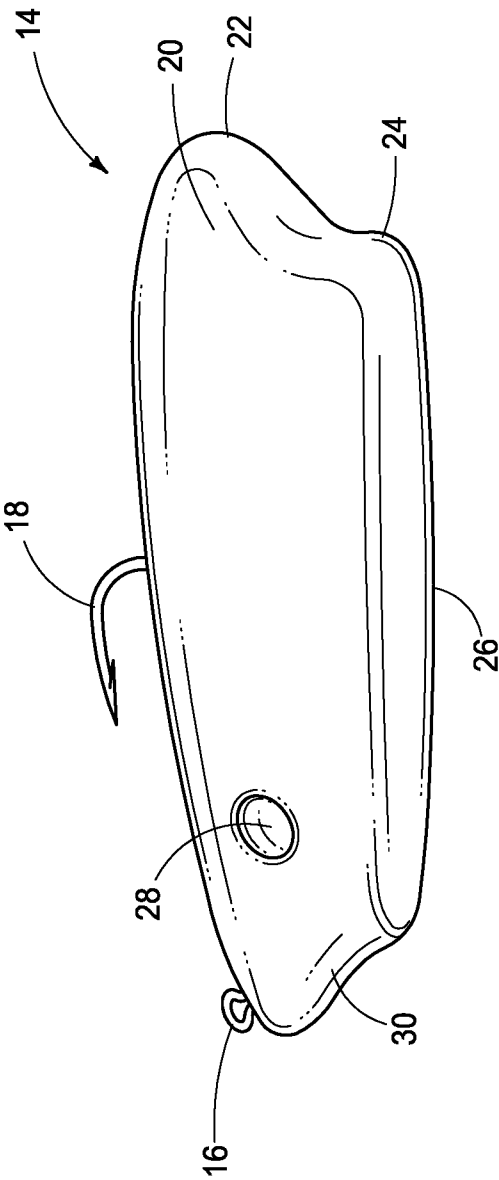
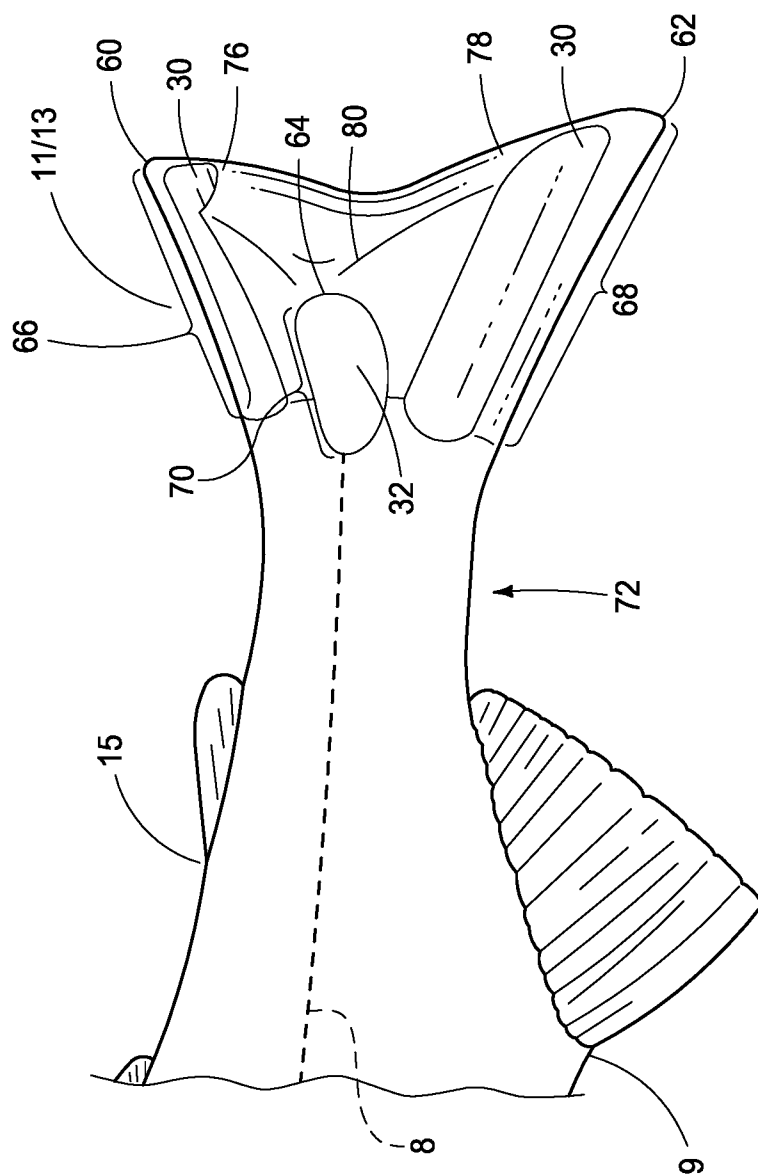


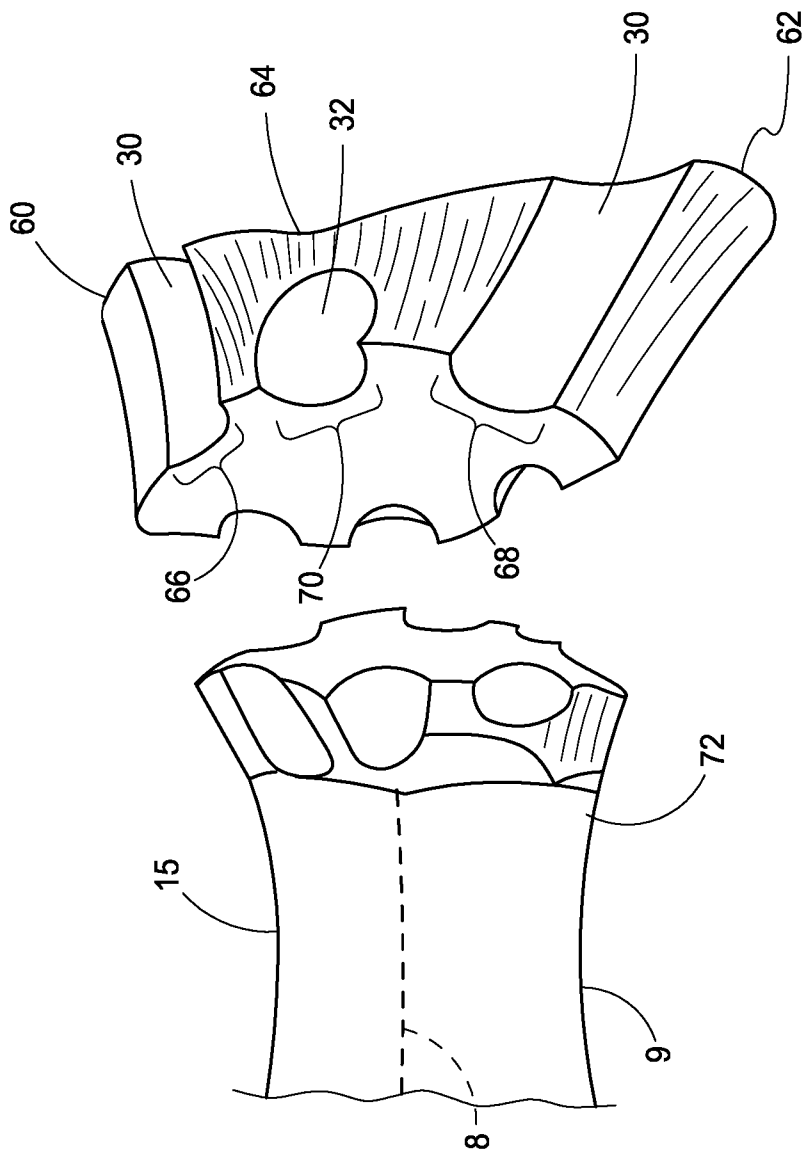
FIG. 1



**FIG. 2**



**FIG. 3**



**FIG. 4**

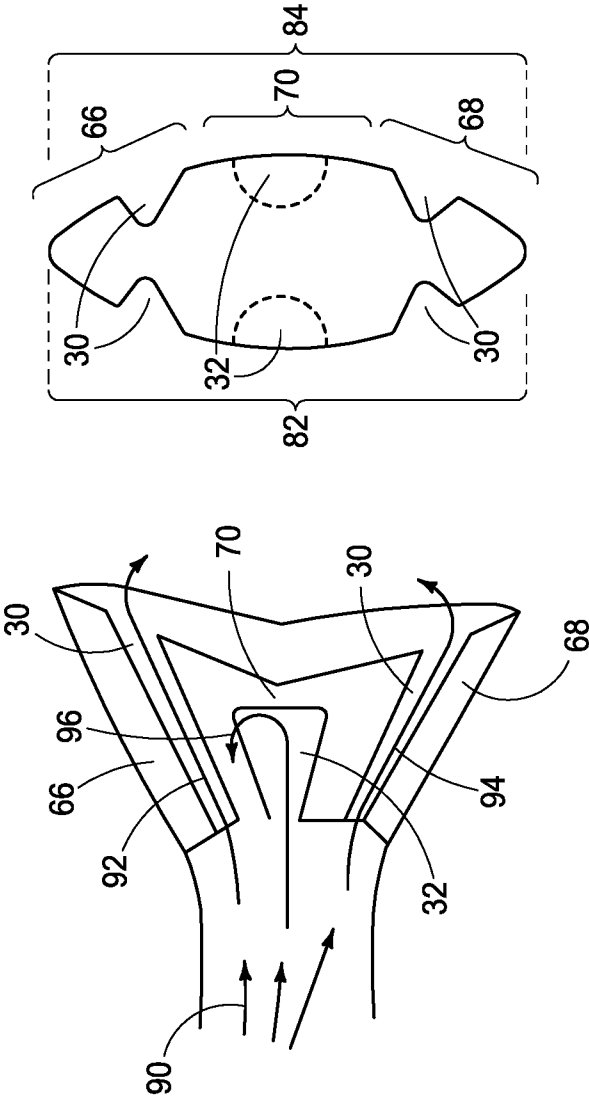


FIG. 5

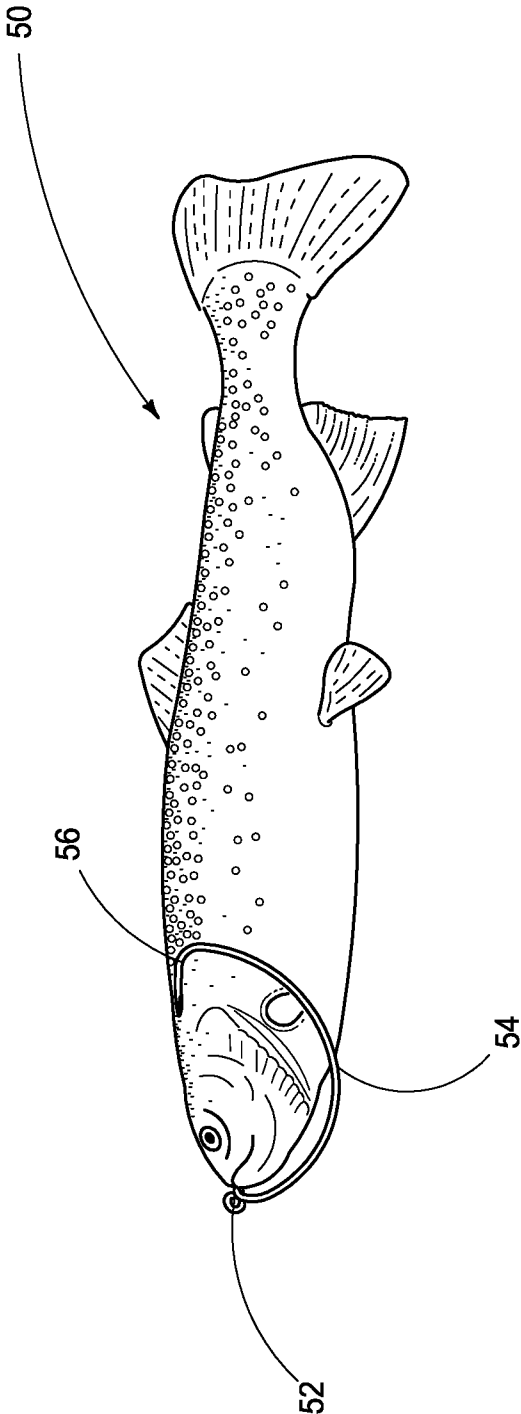


FIG. 6

## FISH LURES AND METHODS FOR MAKING FISH LURES AND LURING FISH

### CROSS REFERENCE TO RELATED APPLICATION

[0001] This application claims priority to and the benefit of U.S. Provisional Patent Application Ser. No. 62/733,467 filed Sep. 19, 2018, entitled “Fish Lures and Methods of Making Fish Lures”, the entirety of which is incorporated by reference herein.

### TECHNICAL FIELD

[0002] The present disclosure relates to fishing lures and more specifically articulated fishing lures, manufacturing methods, and uses.

### BACKGROUND

[0003] Fishing lures have become increasingly important in game fishing as well as industrial fishing. Current lures can be powered and/or articulated to simulate bait fish. This simulation can include weighting the lure properly and/or articulating the lure in certain portions to allow for the lure to simulate bait fish upon a dragging motion and/or sinking motion. The present disclosure provides fishing lures and fishing lure production methods and uses.

### SUMMARY

[0004] Soft bait lures emulating a fish are provided. The lures can include a fish emulating body extending from a head to a tail. The tail can define: an end upper point substantially aligned with a dorsal line of the body; an end lower point substantially aligned with a pelvic line of the body; and opposing end mid points substantially aligned with lateral lines of the body, each of these end points extending along individual upper, lower, and midpoint surfaces of the tail to terminate at a caudal peduncle of the lure. The lure can provide at least one channel within at least one of the exterior surfaces of the tail.

[0005] Methods for manufacturing a soft bait fishing lure are also provided. The methods can include: providing a soft bait fishing lure having a tail; and removing one or more portions of one or more exterior surfaces of the tail to define one or more channels within the one or more surfaces of the tail.

[0006] Methods for luring fish using a soft bait fishing lure are also provided. The methods can include, while providing a flow of water from head to tail of a fishing lure, channeling at least some of the water through one or more channels within the surface of the tail of the fishing lure.

### DRAWINGS

[0007] Embodiments of the disclosure are described below with reference to the following accompanying drawings.

[0008] FIG. 1 is a depiction of two fish lures and a fish lure insert according to an embodiment of the disclosure.

[0009] FIG. 2 is a fish lure insert according to an embodiment of the disclosure.

[0010] FIG. 3 is a portion of a fish lure tail according to an embodiment of the disclosure.

[0011] FIG. 4 is a cross section of a fish lure tail according to an embodiment of the disclosure.

[0012] FIG. 5 is a depiction of fluid flow about the tail of FIG. 4, according to an embodiment of the disclosure.

[0013] FIG. 6 is a fish lure according to an embodiment of the disclosure.

### DESCRIPTION

[0014] This disclosure is submitted in furtherance of the constitutional purposes of the U.S. Patent Laws “to promote the progress of science and useful arts” (Article 1, Section 8).

[0015] The fish lures and methods of making fish lures according to embodiments of this disclosure will be described with reference to FIGS. 1-6. Turning first to FIG. 1, a series of fish lures is shown and represented as fish lure 10, fish lure 12, and fish lure insert 14. As can be seen, the fish lures have a belly or pelvic side 9, a dorsal side 15, a lateral line 8, as well as a head 2 and a tail. In accordance with example implementations, fish lure 10 can include tail 11, and fish lure 12 can include tail 13. In accordance with example implementations, specific constructs of the tail can substantially align with specific constructs of the lure body.

[0016] Referring next to FIG. 2, a fish lure insert to be encased in a soft fish lure body as shown in FIG. 1 is shown in FIG. 2 as insert 14. In accordance with example implementations, insert 14 can include a hard cast plastic body that includes an eyelet 16 as well as a hook 18 projecting from a dorsal side of fish lure 14. In accordance with example implementations, the fish lure hard body 20 of insert 14 can include a bulbous end 22 as well as receding to a less indented end 24. Less indented end 24 can extend in a substantially planar manner or flat manner 26 to a forward portion of body 20. Associated with forward portion body 20 can be a hole or eyelet 28, as well as an indented or non-normal portion 30 extending to eyelet 16.

[0017] In accordance with example implementations and with reference to FIGS. 3 and 4, fish lures 10 and 12 can include tail portions 11 or 13. Fish lures 10 and 12 can be considered soft bait fish lures as they are primarily constructed of a polymeric material such as polyvinyl chloride (PVC) and oil-based resin. Typically, these lures are provided by casting the PVC and resin. The tail of the lure can be defined by specific constructs that relate to other constructs of the body of the lure. For example: an end upper point 60 of the tail can be substantially aligned with dorsal side 15; an end lower point 62 of the tail can be substantially aligned with pelvic side 9; and opposing end midpoints 64 can be substantially aligned with lateral line 8. Each of end points 60, 62, and 64 can extend along individual upper 66, lower 68, and midpoint surfaces 70 of the tail to terminate at caudal peduncle 72.

[0018] In accordance with example implementations, tail portions 11 or 13 can include one or more recesses for channels 30 or 32 defined within one or more of the exterior surfaces of the tail. One or more channels 30 can be defined within surface 66 between end midpoint 64 and end upper point 60; and/or within surface 68 between end midpoint 64 and end lower point 62. Each of these channels may extend through an end surface 76 and/or 78. Additionally, one or more recesses or channels 32 can be defined within surface 70 between end midpoint 64 and caudal peduncle 72. In accordance with example implementations, a channel 32 can terminate prior to end surface 80 of the tail.

[0019] In accordance with example implementations, the tail can define opposing recesses or channels with each of

the recesses or channels being within the surface between the end upper point and the end midpoint and/or between the end lower point and the end midpoint. Opposing recesses or channels can be within the surface between the end midpoint and the caudal peduncle. Additionally, the tail can define opposing lateral surfaces **82** and **84**. Accordingly, each of these lateral surfaces can include individual upper **66**, lower **68**, and midpoint **70** surfaces. Individual channels and/or recesses can be defined within one or more of these lateral surfaces. According to another implementation, opposing surfaces can also include opposing channels or recesses.

**[0020]** Referring to FIG. 4, a cross section of the tail portion **11/13** is shown wherein demonstrating non-planar edges of the tail portion **11/13** when cross sectioning through recesses **30** and **32**. In accordance with example implementations, the channels or recesses can be created within provided lures by removing portions of the tail of the lure. For example, portions of the tail can be carved away to reveal the recesses and/or channels of the present disclosure.

**[0021]** Referring to FIG. 5, detailed side and end views of a tail is depicted with water directional arrows. As can be seen the water supporting the lure can proceed through upper and lower channels relatively unimpeded while the middle channel is blocked providing resistance to fluid flow. Accordingly, while providing water flow **90** from head to tail across the lure, for example, via trolling, water flow **92**, **94**, and/or **96** can flow along defined paths and as a result direct a desired motion of the tail. Accordingly, channels **92** and **94** can direct flow through the end of the tail. This, according to example implementations, can stabilize the upper and lower portions of the tail, preventing twisting of the tail. Also, recess or channel **32** can direct flow **92** to a terminus thus using the force of flow **92** to move the midpoint of the tail from side to side, emulating a swimming fish.

**[0022]** Referring next to FIG. 6, and in accordance with another implementation of the present disclosure, a fish lure **50** is provided that includes an eyelet **52** connected to a hook

**54**. Hook **54** can be embedded within the soft body of the lure and extend to a tip of hook or barbed end **56**. In accordance with example implementations, this hook is shown on the exterior of the lure; however, in working implementations, the hook will be in the interior of the lure with a portion or none of the hook extending through the soft pliable material of the lure.

**[0023]** In compliance with the statute, embodiments of the invention have been described in language more or less specific as to structural and methodical features. It is to be understood, however, that the entire invention is not limited to the specific features and/or embodiments shown and/or described, since the disclosed embodiments comprise forms of putting the invention into effect.

**1-15.** (canceled)

**16.** A method for manufacturing a soft bait fishing lure, the method comprising:

providing a soft bait fishing lure having a tail; and  
removing one or more portions of one or more exterior surfaces of the tail to define one or more channels within the one or more surfaces of the tail.

**17.** The method of claim **16** further comprising defining opposing channels within the tail.

**18.** The method of claim **16** further comprising defining a plurality of channels within at least one lateral surface of the tail.

**19.** A method for luring fish using a soft bait fishing lure, the method comprising:

while providing a flow of water from head to tail of a fishing lure, channeling at least some of the water through one or more channels within the surface of the tail of the fishing lure.

**20.** The method of claim **19** further comprising providing at least one channel that terminates at an end surface of the tail.

\* \* \* \* \*