

To us, the environment in which fish dwell often seems cold, dark, and mysterious.  
对我们来说，鱼类居住的环境通常显得冰冷，黑暗，而且神秘。

But there are advantages to living in water, and they have played an important role in making fish what they are.

但是生活在水中是有些优势的，并且这些优势对鱼来说是很重要的。

One is that water isn't subject to sudden temperature changes.

其一是水不会受制于温度的突变。

Therefore, it makes an excellent habitat for a cold-blooded animal.

因此对于冷血动物来说它制造了一个优秀的生活环境。

Another advantage is the water's ability to easily support body weight.

另一个优势是水能轻易的支撑身体重量。

Protoplasm has approximately the same density as water, so a fish in water is almost weightless.

细胞质同水有着大致相同的密度，因此一条鱼在水中几乎是无重量的。

This "weightlessness" in turn means two things: One, a fish can get along with a light weight and simple bone structure, and two, limitations to a fish's size are practically removed.

这个“没有重量”依次意味着两件事：一，一条鱼可以同个轻的体重以及简单的骨骼结构相处的很好，还有二，对一条鱼的大小限制几乎移除了。

Yet there is one basic difficulty to living in water—the fact that it's incompressible. 但是在水中生活还有一个基本的困难——它不能压缩的这个事实。

For a fish to move through water, it must actually shove it aside. Most can do this by wiggling back and forth in snakelike motion.

对于一条要在水中穿行的鱼，实际上它必须从它的侧面推动。大多数鱼通过蛇一样的动作来回摆动来实现这一点。

The fish pushes water aside by the forward motion of its head, and with the curve of its body and its flexible tail.

鱼类通过它们头部向前的动作，身体的弯曲以及它的有弹性的尾巴把水推到一边。

Next, the water flows back along the fish's narrowing sides, closing in at the tail, and helping the fish propel itself forward.

接下来，水顺着鱼类变窄的两侧流回，在尾巴处合流，然后帮助鱼推行它们自己向前。

The fact that water is incompressible has literally shaped the development of fish.

水是不可压缩的事实，理论上塑造了鱼类的发展。

A flat and angular shape can be moved through water only with difficulty.

一个平直的和有角度的形状能穿过水中被移动，只是会很吃力。

And for this reason, fish have a basic shape that is beautifully adapted to deal with this peculiarity.

由于这个原因，鱼类有一个基本的能完美适应的外形去对付这种特性。