

C1 / Task 1

Read the text below and give short answers (a maximum of TEN words) to the following questions in English. The first answer is given as an example. The use of dictionaries is NOT permitted.

Maximum score: 20 point

0.	How does Jordan Richard avoid being taken off guard?	<i>he is braced (1) for the worse (1)</i>
1.	Where do mussels exert a key role?	
2.	What exactly constitutes their contribution to nature?	
3.	What puts mussels in a fragile position?	
4.	How does the Clinch River die-off stand out?	
5.	Which fact provides a clue about the cause of the die-off?	
6.	How are invertebrate species regarded in general?	
7.	What is the potentially worst consequence of a die-off?	
8.	How might a less severe die-off upset nature?	
9.	Which scenario could increase the damage done by the disease?	
10.	What do innovations block?	

Mass mussel die-offs baffle scientists

Each fall since 2016, wildlife biologist Jordan Richard has returned to the same portion of the Clinch River in Tennessee, braced for the worst – tens of thousands of newly dead mussel shells gleaming from the surface of the water. The mass die-off isn't recognizable at first. But once Richard sees the first freshwater mussel, he scans the river and finds another every five to 10 seconds.

Mussels are the backbone of the river ecosystem because they control silt levels and filter water. Of the roughly 300 freshwater mussel species in North America, 71% are considered endangered, threatened or of concern, largely because of human degradation of rivers. But researchers looking at the Clinch River in Tennessee suspect that the die-off there could be happening, at least in part, because of a disease – largely because it is not affecting other types of animals.

In Oregon and south-west Washington, conservation biologist Emilie Blevins says she has seen tens of thousands of mussels dying, including in the Chehalis River. Western pearlshell mussels have been a key target. Blevins works for the Xerces Society, a conservation group established in the 1970s to call attention to risks to invertebrate species, including bees, dragonflies and snails – the species “the world is running on” but doesn't think of as often, she said.

Tony Goldberg, a veterinary epidemiologist at the University of Wisconsin, explained that even if a die-off doesn't cause outright extinction, it can whittle down a species' numbers enough to cause ecosystem shifts or even collapses. If the problem with the mussels is a disease, Goldberg worries that it could evolve and learn how to kill other kinds of freshwater species. He said technologies are rapidly developing to prevent viruses and other pathogens in wildlife, including with vaccines administered to eggs and probiotics. In the meantime, mussel disappearances could permanently change rivers communities rely on.

www.theguardian.com