Mussels Make Marine Superglue

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Mussels make marine superglue, according to Nature Science Update, 12 Jan 2004. Jonathon Wilker and colleagues at Purdue University (Lafayette, Indiana, USA) have studied blue mussels to find out what enables shellfish like mussels and barnacles to glue themselves so strongly to rocks and boat hulls. They found that mussels extract iron from sea water and add it to the protein glue of cross-linked proteins, to a create substance that is as strong as superglue. By analysing the glue and understanding how it forms such strong bonds with any surface the mussel settles on, the scientists are hoping to make protective coatings for boats that prevent the glue from setting. Because the glue is compatible with living tissue and works in wet environments, it could also be developed as a surgical adhesive.

Editorial Comment There are man-made glues that don't work until a setting agent is mixed with the glue. The glue and the setting agent are no use on their own, but are very useful when combined by an intelligent chemist who understands their individual properties and can see they will work together. If we can discover how to manufacture mussel glue it will be super-strong evidence that mussels were first made by an intelligent creator. (Ref. mussel, glue, iron)