

1. http://adoptmicrobe329.blogspot.com/p/adoption-center_18.html This is just an overview for the microbes. Please go to link for further detail and activities and to the *JOIDES* Resolution web site to participate in an upcoming program.

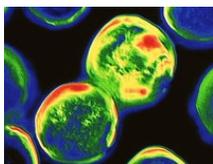
Alcanivorax borkumensis: [Adopt Me Here!](#)



Alcanivorax borkumensis is a helpful microbe that can eat oil and hydrocarbons in the presence of oxygen. Although it is well known from chomping on hydrocarbons in oil spills, it was first isolated from sediments of the North Sea, where lots of oil and gas wells are located. *Alcanivorax* is looking for a new home in an oily environment - anybody on the Gulf Coast interested?

Image courtesy of American Society of Microbiology and Heinrich Luensdorf, HZI Braunschweig)

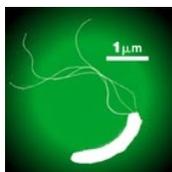
Archaeoglobus fulgidus: [Adopt Me Here!](#)



This is *Archaeoglobus fulgidus*, an archaeote who can be found causing trouble in steamy and stinky hydrothermal vents and deep ocean oil wells. *Archaeoglobus* likes to eat sulfate, making hydrogen sulfide as a waste product, and this sulfide contributes to the rotten egg smell found at hydrothermal vents and oil wells. *Archaeoglobus* is looking for a new home at hot temperatures (75 Celsius/165 Fahrenheit).

Image courtesy [MicrobeWiki](#) and Nature Magazine.

Arcobacter sulfidicus: [Adopt Me Here!](#)



Arcobacter sulfidicus is like a little hotdog with 4 tails, swimming around looking for sulfide and oxygen to eat. It happily lives around hydrothermal vents at the seafloor, so it likes warm temperatures.

Image courtesy of [Dr. Craig Smith](#), Woods Hole Oceanographic Institution

Beggiatoa spp.: Adopt me [Here!](#)



Beggiatoa bacteria love stinky sulfide, which they eat with abandon while living on marine sediments. *Beggiatoa* make string-like filaments which are visible to the naked eye, in white, orange and pink. *Beggiatoa* form thick 'mats' on the sediment surface in areas with high sulfide - such as hydrothermal vents and marine cold seeps. Image courtesy of [MicrobeWiki](#) and Microbial Diversity 1997 (Rolf Schauder).

Desulfovibrio desulfuricans: [Adopt Me Here!](#)



Meet *Desulfovibrio desulfuricans*, another sulfate eating microbe like *Archaeoglobus*. Unlike *Archaeoglobus*, *Desulfovibrio* is a bacterium (not an archaeote), but they both generate stinky hydrogen sulfide as a waste product. *Desulfovibrio* likes to live in muddy environments at the seafloor, but it definitely does not like to live around oxygen (it's an anaerobe!). This bacterium can also eat nitrate and metals like iron and chromium, so it has

become popular as a potential 'bioremediator' of toxic sites.

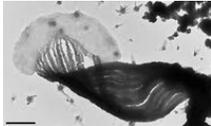
Image courtesy of [MicrobeWiki](#) and the Lawrence Berkley National Laboratory.

Marinobacter aquaeolei: [Adopt Me Here!](#)



Marinobacter aquaeolei is a versatile microbe that lives in deep water and ocean oil wells, swimming around in search of something to eat. *Marinobacter* loves to eat iron, forming rust as a waste product. Sometimes *Marinobacter* forms sticky, slimy biofilms, and they can also eat hydrocarbons.

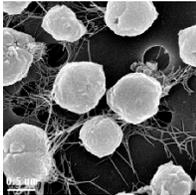
Mariprofundus ferrooxydans: [Adopt Me Here!](#)



Mariprofundus ferrooxydans is a fancy-pants microbe. The microbe itself is shaped like a kidney bean, but as it grows, eating iron and oxygen, it produces beautiful twisted ribbons of rust.

Photo courtesy Clara Chan

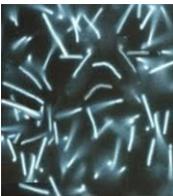
Methanocaldococcus jannaschii: [Adopt Me Here!](#)



Methanocaldococcus jannaschii is a microbe that loves hot hot heat. It can be found in hydrothermal vents at the seafloor, happily making a living making methane gas from eating carbon dioxide and hydrogen. To us, it lives in an 'extreme' environment - water that is slightly acidic and near boiling - so it is very popular among scientists that are curious about how life can survive under such harsh conditions.

Image courtesy of [MicrobeWiki](#) and UC Berkley Electron Microscope Lab.

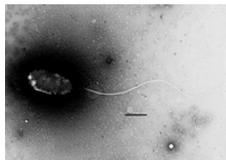
Methanopyrus kandleri: [Adopt Me Here!](#)



Methanopyrus kandleri is one of the hottest microbes on the market, capable of living in near boiling water. *Methanopyrus* eats hydrogen and carbon dioxide and makes methane.

Photo courtesy of [MicrobeWiki](#), copyright K.O. Stetter and R. Rachel, Univ. Regensburg, Germany

Photobacterium profundum: [Adopt Me Here!](#)



Although its name implies a life in the sun, *Photobacterium profundum* originated from dark deep sea sediments off of the coast of Japan - in the absence of sunlight!

Photobacterium is a microbe that is loved by many scientists because of its ability to grow at really high pressures (up to 70 MPa!). It can eat nitrate plus a variety of sugars and other carbon compounds to get energy.

Image courtesy of [MicrobeWiki](#) and sciencemag.org