Sludge Bug of the Month June 2011

Different filamentous bacteria grow under different conditions. This month’s sludge bug is a filamentous bacteria called Microthrix parvicella.

Microthrix parvicella – Gram stain

The dark staining filament is called Microthrix parvicella. It is one of the common causes of foam problems on activated sludge plants especially during winter.

M. parvicella is a coiled filament found inside and surrounding the floc. Individual cells cannot be seen. It stains strongly Gram-positive and Neisser-negative sometimes with Neisser-positive granules.

M. parvicella growth is encouraged by high sludge ages, fat, low temperatures and low dissolved oxygen concentrations. Foam retention will favour growth – do not retain foam or recycle back to the aeration basin.

Can be controlled by dosing aluminium salts, however there may be side effects on the rest of the sludge bug population.

Find out what is growing in your treatment plant… AWT Water provide routine monitoring and troubleshooting services to municipal and industrial WWTPs. We also have a one day course to train your staff at your site on sludge micro, plant optimisation and troubleshooting. For more information contact us at AWT Water ph 09 374 1597, glenys.rule@awtwater.com