

## DIVERSITY OF THERMOPHILIC *CAMPYLOBACTER* ISOLATED FROM THE BØ RIVER, SOUTHEAST NORWAY

Olav Rosef<sup>1</sup>, Algimantas Paulauskas<sup>2</sup>, Aud Stølan<sup>1</sup>, Elisabeth Moen Bråthen<sup>1</sup>

<sup>1</sup>Telemark University College, Telemark, Hallvard Eikas Plass 1, 3800 Bø i Telemark, Norway,

Fax: +47 3595 2703; Telephone +47 3595 2782; E-mail: olav.rosef@hit.no

<sup>2</sup>Vytautas Magnus University, Vileikos g. 8, Kaunas, Lithuania

**Summary.** Out of 125 samples we isolated 45 thermophilic *Campylobacter* spp. from Bø River by filtration followed by growth on selective agar plates. The species were identified by biotyping, multiplex PCR and ribotyping. *C. jejuni* represented 17 (37.7%), *C. coli* 2 (4.4%), *C. lari* 5 (11.1%), *C. hyointestinalis* 1 (2.2%) and *C. species* 20 (44.5%). Five of *C. jejuni* were classified in ribogroups (DUP-PST1-ID) while four *C. lari* were identified in three. The RiboPrinter® identified *C. hyointestinalis*. Dendrogram analysis grouped the isolates into two main clades and seven subclades. *C. lari* and *C. coli* were grouped in one clade while most *C. spp.* and the *C. hyointestinalis* were grouped in the other. *C. jejuni* were clustered in five subclades and display a high degree of diversity. Because of the frequent isolation of campylobacters in surface water and the lack of knowledge of the pathogenesis of *Campylobacter* strains and their virulence factors, special hygienic precautions should be taken to avoid the risk of transmitting campylobacteriosis from water.

**Key words:** *Campylobacter*, diversity, water, clustering, genotyping, ribotyping.