

Distribution and Pathogenicity of the Protist *Labyrinthula* sp. in western Mediterranean Seagrass Meadows

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d E Fd o 2011

Abstract
thula ., o o io Labyrin-
d o d 18 d
d o B (Md).
io d d 70% o d o
o (. ., Posidonia oceanica, Cymodocea nodosa, d
Zostera noltii). Labyrinthula . () pathogenic (70%) / 1.67 / 1.0 1118.20.6101.2467d ((head)) 7.8 1.76144

oo d d d o d o
 d d o d o
 H oi d d o oi d
 d d o Zostera marina d o A d
 o d i 1930 d o
 o - i d i o d (1936; 1943;
 M . 1991). , Labyrinthula
 capricorni o d oi 1960 (A
 1964) d Thalassia testudinum F d B d
 1980 (o . 1991). I , Labyrinthula
 . 1988; o d . 1993; d d H i o 1994;
 d H i o . 1996), o i d o d i o Labyrinthula
 o o o oi d o i o d o i
 d i oi i d o i o d o i
 o . 1991; i k . 1995)
 Labyrinthula . (. . , d o o)
 2009). M oi o i' d i o
 . o (M . 1988; B o i d M i ,
 i o Labyrinthula o).
 i o d d i o o o o d -
 o d d i o o o i o d o d d
 o d o i k i k i (M
 1992). I Labyrinthula d i
 o o (o d oi 2002).
 Labyrinthula . d oi d o d

Labyrinthula : Z. marina, Zostera
 mucronata, Zostera noltii, Zostera japonica, Heterozostera
 tasmanica, P. oceanica, Halodule universis, Halodule
 wrightii, Cymodocea nodosa, Phyllospadix scouleri, Syrin-
 godium isoetifolium, Thalassodendron ciliatum, Ruppia
 cirrhosa, Ruppia maritima, T. testudinum, d Halophila
 ovalis (d d H i o 1991; d d H i o
 1994; M i d B o i k i o 6d rlf () T) BMC0/Link >2MCID2418<>BDC1101 Tf () T () M 1138 (o -6.9() -12(o) -9.6() -8.8

I d o , o i d 1,200 ². d I o o o Labyrinthula .
i d o o i d o i d o 0-45 . C. nodosa Labyrinthula . i o d i o i
o P i i i d o o d o d

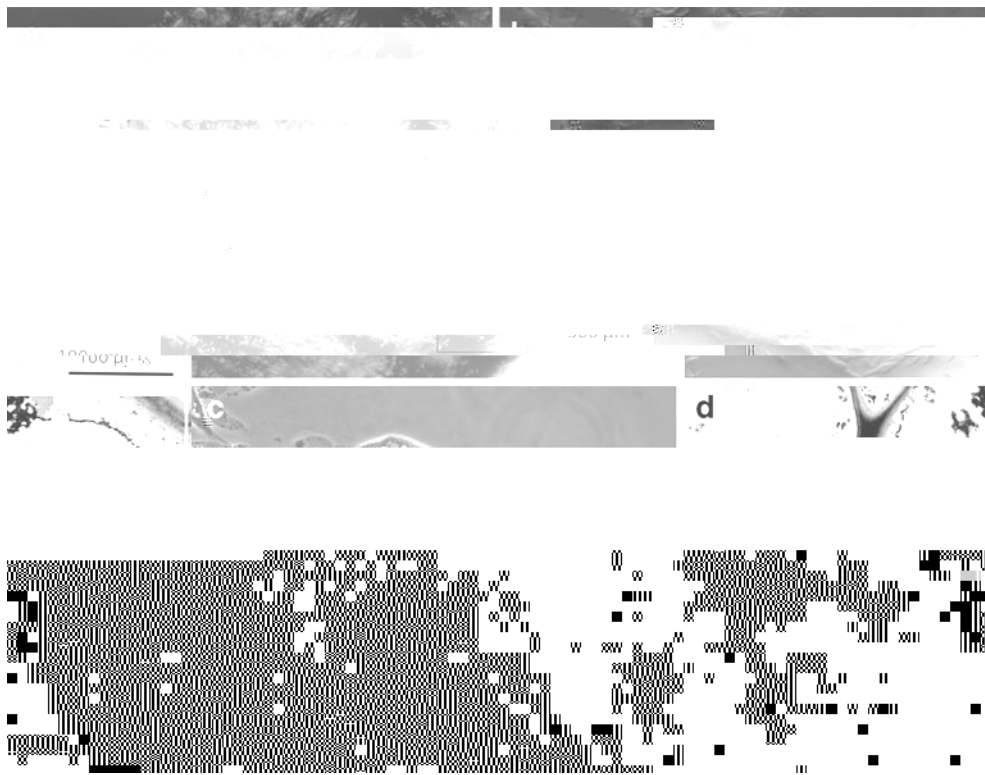


Fig. 2
A Labyrinthula d
T. testudinum o

o i d 60 C o_i 16 . o (i -
i

C d (2006), Labyrinthula . o io T.
testudinum io - d Z. marina, o d .
io d k o k oi o o d
o d io T. testudinum o d d B , F o d ,
d oo o i Md
d k k A , d F o d k k ,
Labyrinthula . o io P. oceanica
d , o k , o d d d -
o io d io o k d d o , Labyrin-
thula . d io o k d d o ,
o io d o , d k o k o
o d io M . (1988).
o Labyrinthula . k k o d d
o k (T. testudinum o d Z. marina) Md o
o Labyrinthula . o d io P. oceanica.
C₀ Labyrinthula . o d d o
I o o k o k d o d Labyrinthula .
k k d d k o o Md k -
k k k k Labyrinthula
k o - io d oi k o io d
o , o o d o o o
o io Labyrinthula . o k oi , k .
A o d o o Md
io o d o k o d Labyrinthula .
k o . I o d d Labyrinthula .
o k o d oi d k Labyrinthula .
o d o d o d o . I o
oi d io o o d k d k ,
d k k d d o o o d d . oi d ,
k o d d o k d d .

Acknowledgments oi d d F d

- , C.E. 1936. *Zostera marina*. I, A Bulletin 70: 148–158.
- , M.B., . . . B . . . C , M.J. D , J . F - , L.K. M , D. , L.A. , J.C. . 1991. *Thalassia testudinum* (A). Marine Ecology Progress Series 71: 297–299.
- , G.M., .K. , F.C. D , L.A. D , . M d , A. H , d . . C . 2000. G d o i o o i - B d d o i o i . Nature 408: 49–50.
- , F. , D. , H. L , d K. A . 1993. *Labyrinthula zosterae* J . Diseases of Aquatic Organisms 16: 73–77.
- , . . , d F.J. . 1995. Biometry: The principles and practice of statistics in biological research, 3d d . H. F . , L. , M. C d , A.E. B , d . M. A . 2005. - d . Marine Ecology Progress Series 303: 123–131.
- , .G. 1938. *Zostera marina* . The New Phytologist 37: 50–71.
- , L.H. , d C.d H . 1991. *Zostera noltii*. Aquatic Botany 40: 155–163.
- , L.H. , d C.d H . 1994. Labyrinthulaceae . Aquatic Botany 48: 1–20.
- , L.H. , .L. A , d J.D. d G . 1995.) d o o Labyrinthula zosterae i - i , o o Zostera marina o . Aquatic Botany 52: 35–44.
- , M., C.M. D , J.B. C , J. .C. D , . , A. C d , J . F , K.L. H , A. . H , G.A. K d , J. K , F. . o i , d . L . 2009. A . Proceedings of the National Academy of Sciences of the United States of America 106: 12377–12381.
- , E.L. 1943. d o Labyrinthula, d o . American Journal of Botany 30: 586–59 121 3.5680548 .54/53:471