

7HP SHUDWXUH DQG Crasostreus viridis V H RI
DQG LWVV (brid) DV VR QULD
/DZUHQFH /DP
&ROORHJH UUV DQG 6FLHQFHV %LRORJ\
'RQQD / 5KRDGV

Abstract

Vibrio LQIHFWRQV DUH RQH RI WKH OHDGLQJ FDXVHV RI VHDIRRG

Table 1: &RORRQVPLQJ XQLW FRXQWV VDPQCRDKRPLRCHWR]SMLRKRXKLG VHVQRWHG WKDW DOWKRX
DEXQGDQW H[SHULPHQWDOO\ FRXQWDPZRUHKBPRJHQE]HG FRQDWRID WLVVXH 8SRQ VWDQGDQ
WLVVXH DOO H[SHULPHQWDO YDOXH V ZHUH DPSOLILHG

ZHUH WKHQ VWRUHG WRJHWKHU XQGHU WKH GHVLUHG H[SHULPHQWDO
FRQGLWLRQV ~~FR]HL]WKHU~~ RU ~~7KH~~
R\VVWHUV ZHUH SDUWLDOO\ ZUDSSHG LQ D PRLVW SDSHU WRZHO WR
PDLQWDLQ KXPLGLW\ 7KH GXUDWLRQV DW ZKLFK WKH VDPSOHV ZHUH
VWRUHG XQGHU WKH GHVLUHG H[SHULPHQWDO FRQGLWLRQV ZHUH RQH
WZR IRXU DQG VHYHQ GD\ \$W HDFK RI WKHVH GHVLUHG
LQFXEDWLRQ SHUVRGV ZHUH ZRPR\WHG IURP WKH
VDPSOH SRRO 7KHVH RHGWDHQV ZKXFNWGHQ ZDVK
)ROORZLQJ WKH VKXFNLQJ RI WKH R\VVWHUV WKH R\VVHU WLVVXH ZDV
SODFHG LQWR D VWHULOH EOHQGHU DQG WKH DPRXQW RI R\VVHU WLVVX
XVHG ZDV QRWHG P/ RI ~~DKHQ~~LILFLDO VHDZDWHU ZDV W
DGGHG WR WKH EOHQGHU DQG WKH FRQWHQWV ZHUH EOHQGHG IRU D
PLQXWH IRU KRPRJHQL]DWLRQ 7KH KRPRJHQL]HG R\VVHU WLVVXH
ZDV WKHQ WUDQVIHUUHG ~~IRU~~SRQDWR] &Q520DJDU
WZR DOLT~~XRWDQRI~~)RU WKH ~~W~~WULDOV DW
RQO\ ~~+~~ DOLT~~ZRUWH~~ XVHG DV WKHVH WULDOV ZHUH
SHUIRUPHG GXULQJ WKH SURFHVV RI GHWHUPLQLQJ WKH EHVW
SURFHGXUH WR IROORZ

H[SHULPHQWDO SHULRG RI KRXUV XQGHU WKHVH FRQGLWLRQV
ZDV QRWHG WR EH QRQYLDEOH WR RZHYHU LQWHUHVWLQJ
VWLOO DEOH WR JURZ XQGHU WKHVH FRQGLWLRQV DOWKRXJK SURYLGLQ
GUDVWLFDOO\ ORZHU FRXQWV 2Q WKH RWKHU KDQG DW WKH KLJKHVW
H[SHULPHQWDO WHPSHUDWXUHV RI f& LW ZDV REVHUYHG WKDW
ZDV QRW SUHVHQW DIWHU H[WHQG HG SHULRGV RI LQFXEDWLRQ ,Q
FRPSDU\ WR SOLFDWHG DW DQ H[SRQHQLDO UDW 1RWLQJ
WKDW WKH LQFXEDWLRQ WHPSHUDWXUH RI f& ZDV LQWHQG HG WR
VLPXODWH WKH FRQGLWLRQV LQVLGH WKH KXPDQ ERG\ WKLV UHVXOW
ZDV XQH[SHFWHG EXW QRW LQFRQVLVWHQW DV WKH VDPH
REVHUYDWLRQ ZDV QRWHG IRU ERWK WULDOV DW f& DQG
UHDVRQLQJ EHKLQG WKLV LV XQNQRZQ +RZHYHU RQH SRVVLELOLW\
FRXOG EHLWKLQF DSDEOH RIVFRPSHWLQJ ZLWK
UHVXODVHW KLJKHU H[SHULPHQWDO WHPSHUDWXUHV WKH
&+520DJDU SODWHV ZHUH KLJKO\ FRQIOXHQW UHVXOWLQJ LQ
LQFUHFRPSGLWLRQ IRU VSDGHG DW GROXWBLHQWV
WKLV WKH UHVXOWV RI 3&5 DQG HOHFWURSKRUHVLV GLG FRQILUP WKDW
WKH FRXQWV UHFRUGHG ZHUH DQGLQDFW IRU

V. cholerae.

5HIOHFWLQJ RQ WKH GDWD SURGXFHG PDQ\ PLQRU
LQFRQVLVWHQW RWHG PRZHYHU WKH VFRSH LQ ZKLFK
WKLV SURMHFW ZDV SHUIRUPHG PXVW EH WDNHQ LQWR DFFRXQW 'XH
WR FRQVWUDLQWV LQ WLPH DQGUHVVRXUFHV PXOWLSOH WULDOV XQ
HDFK H[SHULPHQWDO GROGSMUHQPHG UHVXOWLQJ
LQ OHVV WKDQ GHVLUDEOH VWDWLVWLFDO YDULDWLRQ

References

%LYDOYH 'HSXUDWLRQ)XQGDPHQWDO DQG 3UDFWLFDO
\$VSHFWV Depuration: Fundamental and Practical
Aspects 1 S Q G :HE 0DU
KWWS ZZZ IDR RUJ GRFUHS L H L H KWP!
&KURPRJHQLF Chromogenic Agar
Technology 1 S p0 1 SU 1 1