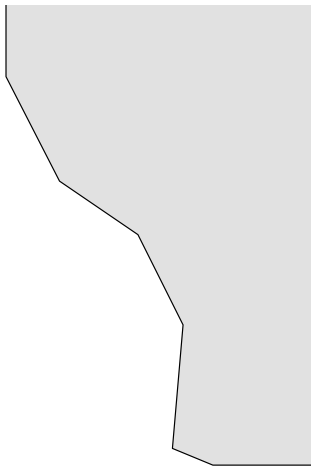

METHOD +ENNEY AND 7INN 4HIS METHOD IRST

POOLED ACROSS PERIODS BEFORE CLASSIICATION THEREFORE THE MAPS SHOWING DIFFERENT TIME PERIODS WERE COMPARABLE
!S A TEST OF THE DEINITION FOR CRITICAL HABITAT BOUNDARY I E A DEINITION THAT DID NOT INCLUDE A POTENTIAL EFFORT BIAS 305% VALUES WERE COMPARED BETWEEN THE MIN UTE CELLS INSIDE THE CRITICAL HABITAT OUTSIDE AND WEST OF IT WESTERN #APE #OD "AY AND OUTSIDE AND EAST OF IT OUTSIDE OF #APE #OD

!LL COMPUTATIONS AND STATISTICAL ANALYSES WERE PER FORMED WITH 3TATISTICAL !NALYSIS 3YSTEM PROCEDURES 3!3 FOR 7INDOWS VERS 3!3)NST)NC #ARY .# #ALCULATIONS OF EFFORT AND 305% WERE PERFORMED WITH CUSTOM 3!3 PROGRAMS DEVELOPED AT THE 5NIVERSITY OF 2HODE)SLAND 7HENEVER POSSIBLE WE USED STATISTICAL TESTS OF HYPOTHESES WITH NONPARAMETRIC METHODS IN 3!3 02/# .0!2 7!9 TO AVOID THE ASSUMPTIONS OF NORMAL DISTRIBUTIONS AND HOMOGENEOUS VARIANCES AS SOCIATED WITH PARAMETRIC TESTS 4HE TEST MOST OFTEN USED WAS THE +RUSKAL 7ALLIS NONPARAMETRIC !./6! 7HEN THE COMPARISON INVOLVED ONLY TWO DISTRIBUTIONS THE 7ILCOXON RANK SUM TEST WAS USED EQUIVALENT TO THE -ANN 7HITNEY 5 TEST OR A PARAMETRIC 4 TEST 4HE ONLY PARAMETRIC TEST THAT WE USED WAS A $UNCAN S MUL TIPLE RANGE TEST IN 3!3 02/# ',- WHICH ALLOWED US TO PERFORM MULTIPLE PAIRWISE

THE SAME FASHION &IG 4HE CENTER OF RIGHT WHALE OC
CURRENCE TENDED TO REMAIN RELATIVELY CONSISTENT ACROSS
THE SEASON AND THERE WAS NO STATISTICALLY SIGNICANT
VARIABILITY IN MEAN LATITUDE OR LONGITUDE FOR THE
WEEK INTERVALS WEIGHTED BY 305% ACROSS THE PERIODS
+RUSKAL 70ALLIS FOR LAT0ITUDEFOR LON
GITUDE 3IMILARLY THERE WAS NO SIGNICANT VARIABILITY IN MEAN LATITUDE
NUAL VARIABILITY IN M0EAN LAT4ITUDE
LONGIT0UDE

4HE TIMING OF THE 305% MAA P

4ABLE

-EAN ,STANDARD ERROR ;3%= AND MAXIMUM
SIGHTINGS OF .ORTH !TLANTIC RIGHT WHALES
#ALISER UNIT OF EFFORT NO OF WHALES
EFFORT IN #APE #OD "AY -ASSACHUSETTS S
TUDY AREA PER DAY ACROSS THE ENTIRE STUD

0ERIOD	-EAN	3%	-AXIMUM
	N	A @HA1€	I N N• e94" @ YF
n $EC			
n $EC			
$ECn *AN			
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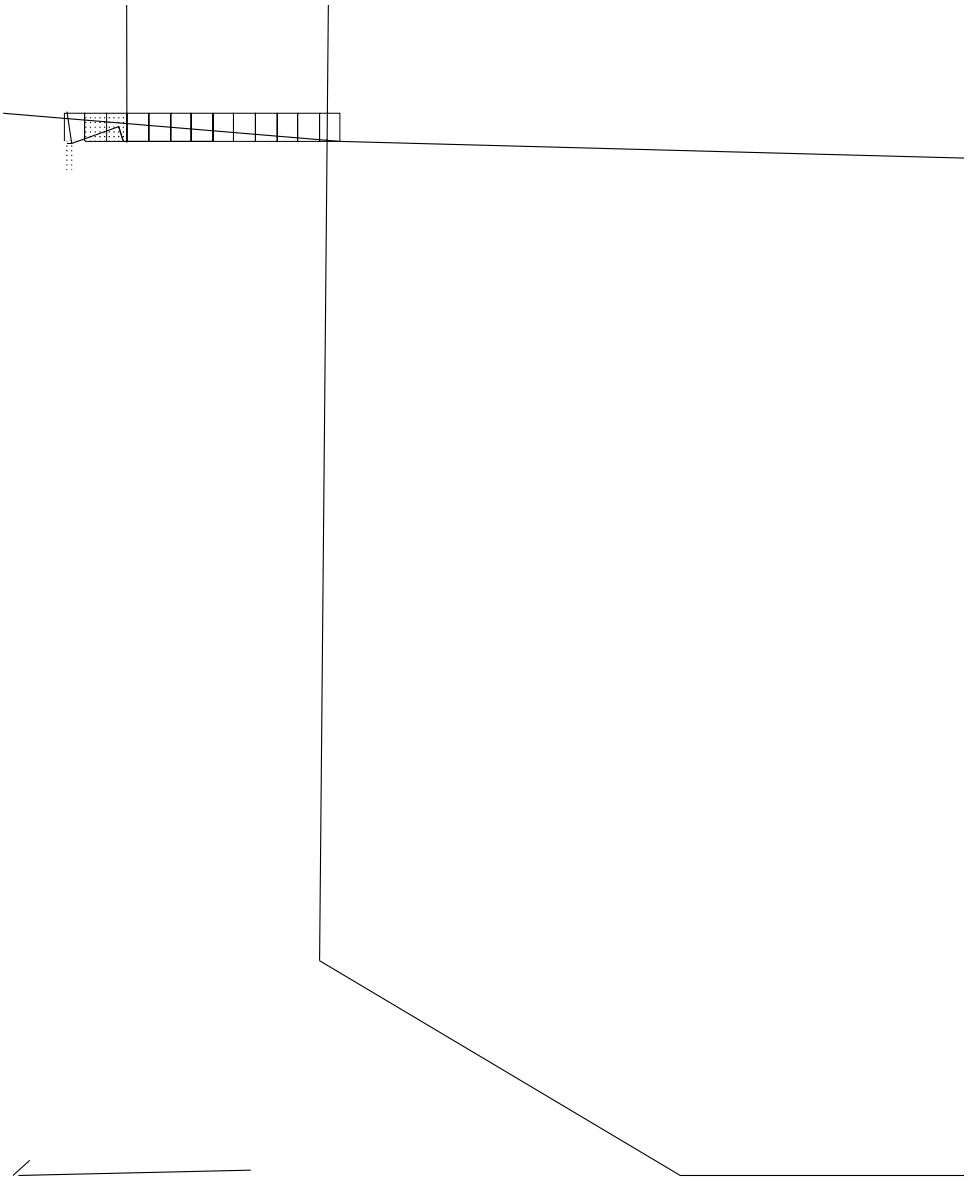
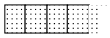


&IGURE

.ORTH !TLANTIC RIGHT WHALE SIGHTINGS PER UNIT EFFORT 305% WHALES KM OF SURVEY EFFORT IN #APE #OD "AY BY TWO WEEK PERIOD 305% VALUES ARE SEPARATED BY QUARTILES REPRESENTING THE TOP SEC AND BOTTOM QUARTERS OF THE DISTRIBUTION 4HE UPPER QUARTER IS FUR IDENTIFYING THE TOP OF ALL VALUES



"ROWN - 7 3 $ +RAUS # + 3LAY AND , 0 'ARRISON
3URVEYING FOR DISCOVERY SCIENCE AND MANAGE
MENT)N4HE URBAN WHALE .ORTH !TLANTIC RIGHT WHALES
AT THE CROSSROADS 3 $ +RAUS AND 2 - 2OLLAND EDS
P ¥ (ARVARD 5NIV 0RESS #AMBRIDGE -!
#ASWELL (- &UJIWARA AND 3 "RAULT
$ECLINING SURVIVAL PROBABILITY THREATENS THE
.ORTH !TLANTIC RIGHT WHALE 0ROC .ATL !CAD 3CI
¥
$E,ORENZO #OSTA ! % ' $URBIN # ! -AYO AND % ' ,YMAN
%NVIRONMENTAL FACTORS AFFECTING ZOOPLANKTON IN #APE
#OD "AY IMPLICATIONS FOR RIGHT WHALE DYNAMICS -AR
%COL 0ROG 3ER ¥
&EDERAL 2EGISTER
$ESIGNATED CRITICAL HABITAT NORTHERN RIGHT WHALE
FINAL RULE &EDERAL 2EGISTER n /FFICE
OF THE &EDERAL 2EGISTER .ATIONAL !RCHIVES AND 2ECORDS
!DMINISTRATION .!2! #OLLEGE 0ARK -$
4AKING OF MARINE MAMMALS
!DMINISTRAT R PP@HI#
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