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Canadian Research Survey Data Conversions for Redfish in SA2 + Div. 3K based on Comparative Fishing Trials between an Engel 145 Otter Trawl and a Campelen 1800 Shrimp Trawl

Conversion de données sur le sébaste de la sous-zone 2 et de la division 3K issues de relevés de recherche canadiens reposant sur des essais de pêche comparée d'un chalut à panneaux Engel 145 et d'un chalut à crevettes Campelen 1800

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Abstract

In 1995, the Department of Fisheries and Oceans (DFO) Newfoundland Region replaced the research vessel, standard survey gear and fishing protocol that been utilized on groundfish surveys in Divs. 2J3K from 1977 to 1994. Comparative fishing trials were conducted in 1995 between the new vessel and gear (CCGS Teleost with Campelen 1800 shrimp trawl) the previous vessel and gear (MV Gadus Atlantica with Engel 145 Otter trawl). The data collected were analysed by length groups to provide a means to convert the older data time series into Campelen equivalents. The conversions did not distort any trends in the historic series for Div. 2J3K redfish but suggest that the rate of decline in the survey index since the 1970's was even greater. This is a reflection of the increased catchability of the Campelen for all size groups, particularly for those less than 30 cm.

Résumé

En 1995, la Région de Terre-Neuve du ministère des Pêches et des Océans (MPO) a remplacé le navire de recherche, l'engin de relevé normalisé et le protocole de pêche utilisés pour les relevés du poisson de fond dans les divisions 2J3K de 1977 à 1994. Des essais de pêche comparée des nouveaux navire et engin (NGCC Teleost armé d'un chalut à crevettes Campelen 1800) et des anciens navire et engin (NM Gadus Atlantica armé d'un chalut à panneaux Engel 145) ont été effectués en 1995. L'analyse des données recueillies selon les classes de longueur a permis de convertir les anciennes séries de données en équivalents Campelen. La conversion n'a pas faussé les tendances dans les séries historiques de données sur le sébaste des divisions 2J3K, mais donne à penser que le taux de diminution de l'indice de relevé depuis les années 1970 était beaucoup plus élevé, ce qui reflète le potentiel de capture accru de toutes les classes de longueur au chalut Campelen, en particulier les sébastes de moins de 30 cm de long.

Introduction

Multispecies comparative fishing trials were carried out in 1995 by the Department of Fisheries and Oceans (DFO) Newfoundland region for the purpose of deriving data conversion factors between an Engel 145 survey trawl and a *Campelen 1800* shrimp trawl. The Engel survey gear with bobbin footgear had been the standard survey gear for the Newfoundland region on the MV Gadus Atlantica from 1977-1994 primarily in Div 2J3K. The fishing trials were necessary to provide a means to maintain continuity with the older data time series.

There was also a change in vessel in the Div. 2J3K series with the change in survey gear to the Campelen 1800 with rockhopper footgear. Trials were conducted between the CCGS Teleost (new vessel, new survey gear) and the Gadus Atlantica (previous vessel, previous survey gear). Details of the fishing trials and a formulation of the experimental design and the length based data modelling are outlined in Warren (1996). Six target species were investigated (including redfish) because of their commercial significance and management requirements. A total of 285 successful parallel tows, spread over three trips, were accomplished in February-March 1995. For redfish, of the 250 trawl pairs in which fish were caught by one or both vessels, 8 pairs were determined to have been a situation where one vessel fished on an aggregation missed by the other vessel and were removed from the analysis.

The purpose of this paper is to illustrate the results of the conversion factors and the impact on length distribution as well as trends in stock size using the newly converted data time series. The method of applying the conversion factors was similar to Stansbury (1997).

Materials and Methods

For the applicable surveys in Div. 2J3K between 1978 and 1995, redfish length frequencies for each fishing set were first adjusted to a standardized for distance the net was towed and were then converted from Engel trawl catches to Campelen 1800 trawl catch equivalents. Conversion factors as presented in Warren (1996) for redfish were applied using weighted least squares as follows:

For the Gadus Atlantica conversion from Engel to Campelen Warren (1996):

The converted numbers at length $y_X = R_X * n_X$

where R = ratio of Campelen numbers caught to Engels number caught at length X (in 1 cm length classes)

n = number at length in the Engels fishing set

where

Model used: $\log R = 6.7580137 + 0.006839 * X - 1.927210 \log (X)$

Ratios for X<10 were fixed at X=10 because it was again considered that the model was estimating beyond the range of the data.

Weights were applied in the modeling as the number of fishing sets used to estimate the ratio for a given length class.

After the length frequencies were converted to a Campelen trawl catch equivalent with the model, a sampling ratio was applied if necessary to each length group and then summed to provide total numbers of redfish caught per standard Campelen set (0.8 nautical mile tow distance in 15 minutes with a wing spread of 16.84 m). These numbers were used to calculate a set weight using the following standard length-weight relationship:

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WT (males) = 0.01659 Forklength<sup>2.9548</sup> WT (females) = 0.013272 Forklength<sup>3.0210</sup>
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This dataset was then used to generate mean number and weight (kg) per set by stratum and year for converted data. For comparative and information purposes the previous Engel data are presented here in Tables 1-4 (upper panels) for Div. 2J and Tables 5-8 (upper panels) for Div. 3K. The Campelen equivalent data are listed in the lower panels of the same tables. No adjustments have been made for differences due to revisions to the stratum areas based on updated hydrography charts (Bishop, MS 1994). These revisions were implemented on the 1993 survey.

Results and Discussion

In general the conversion factors derived for each comparative fishing trial reflect the increased catchability for smaller redfish (\leq 20 cm). For the Teleost/Gadus trials, the model estimated a ratio of fish caught by the Campelen to the Engel at about 1.0 for 38 cm fish and increased gradually to about 2 as the length approached 25 cm. This covers most of the range of fish lengths which comprise a good deal of the catches in various surveys in Div. 2J3K by the Gadus Atlantica. Ratios increased rapidly for fish length less than 25 cm, and the ratio at lengths less than 10 were fixed because there were few data for the smaller fish from the fishing trials.

For illustration, a comparison of indices of abundance and biomass between the converted and unconverted data sets in Div. 2J and Div. 3K is presented in Fig. 1. Overall trend in was the same except that the relative values estimated for the Campelen trawl are higher. This is also seen in a comparison of stratified mean number per tow at length for a few illustrative years in the surveys (Fig. 2). The catching efficiency of the Campelen for smaller fish (<20 cm) is demonstrated by these plots.

The Campelen equivalent conversions did not distort any trends in the historic series for Div. 2J3K redfish but suggest that the rate of decline from the late 1970's was even greater. This is a reflection of the increased catchability of the Campelen for all size groups, particularly for those less than 30 cm.

Adopting the Campelen has technically enabled a sampling tool that will detect recruitment to the stock at an earlier stage than before, not only for redfish but other species as well.

References

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Stansbury, D.E. MS 1997. Conversion factors for cod from Comparative Fishing Trials for Engel 145 Otter Trawl and the Campelen 1800 Shrimp Trawl used on Research Vessels. NAFO SCR Doc. 97/73, Ser. No. N2907: 10p.

Warren, W. MS 1996. Report on the Comparative Fishing trial between the Gadus Atlantica and Teleost. NAFO SCR Doc. 96/28, Ser. No. N2701. 16p

Table 1. Mean number of redfish per standard tow in Division 2J from 1978-1992. Upper panel show results of the Engels 145 otter trawl (MV Gadus Atlantica, 30 min tow @ 3.5 knots). Lower panel show Campelen trawl convertion based on comparative fishing trials (CCGS Teleost, 15 min tow @ 3.0 knots) Number of successful sets in brackets, 'NS' = unsampled

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218 501-750 420 1205.5 (2) NS 634.0 (2) 200.5 (2) 109.5 (2) 211.0 (2) NS 118.0 (2) 76.5 (2) 435.5 (2) 383.0 (224 501-750 270 1367.0 (2) 995.5 (2) 644.0 (2) 432.0 (2) 187.5 (2) 216.0 (2) 307.0 (2) 43.5 (2) 250.0 (2) 252.5 (2) 514.0 (230 501-750 237 2833.5 (2) NS 311.5 (2) 159.5 (2) 263.0 (2) 149.0 (2) 181.0 (2) 140.0 (2) 550.0 (2) 260.5 (2) 58.0 (2)			1.5 (4) 114.5 (2) 1.5 (4) 8.3 (3)	21.0 (2)	12.0 (3)
224 501-750 270 1367.0 (2) 995.5 (2) 644.0 (2) 432.0 (2) 187.5 (2) 216.0 (2) 307.0 (2) 43.5 (2) 250.0 (2) 252.5 (2) 514.0 (2) 230 501-750 237 2833.5 (2) NS 311.5 (2) 159.5 (2) 263.0 (2) 149.0 (2) 181.0 (2) 140.0 (2) 550.0 (2) 260.5 (2) 58.0 (2)		383.0 (2)		15.5 (2)	307.0 (2)
230 501-750 237 2833.5 (2) NS 311.5 (2) 159.5 (2) 263.0 (2) 149.0 (2) 181.0 (2) 140.0 (2) 550.0 (2) 260.5 (2) 58.0 (514.0 (2)	29.0 (2) 23.5 (2)	54.5 (2)	55.5 (2)
		58.0 (2)	149.5 (2) 410.5 (2)	130.5 (2)	85.0 (2)
		3.0 (2)	0.0 (2) 12.0 (2)	0.0 (2)	1.0 (2)
231 751-1000 182 0.0 (2) NS 3.0 (2) NS 5.5 (2) 7.0 (2) 43.5 (2) 35.0 (2) 10.0 (2) 2.0 (2) 9.5 (9.5 (2)	NS 0.0 (2)	2.0 (2)	12.5 (2)
236 751-1000 122 NS NS NS 12.5 (2) 6.0 (2) 6.0 (2) 10.5 (2) 25.0 (2) 7.5 (2) 3.5 (2) 0.0 () NS	0.0 (2)	NS 0.5 (2)	0.0 (2)	3.0 (2)
Stratified Analysis: Upper 1118.0 766.5 2005.9 3245.3 563.6 709.4 317.7 157.1 289.1 148.2 744.2	37.2			23.3	30.5
Mean 830.5 320.6 452.5 1140.4 305.6 381.5 218.5 84.9 147.5 63.9 166.4	24.6			17.4	25.8
Lower 543.0 -125.3 -1100.8 -964.5 47.5 53.6 119.3 12.6 5.8 -20.5 -411.4	12.1			11.5	21.1
Converted Survey Abund(millions) 1719.0 593.9 868.6 2268.4 606.5 768.4 413.1 170.9 297.1 128.6 335.1	48.6	335.1	48.6 79.7	35.0	52.0
2J Autumn 1978-1992 Mean Number per tow					

_ower	panel sho	w Campel	en trawl conv	ertion base	ed on compa	arative fishing trials (CCGS Teleost, 15 min tow @ 3.0 knots) Number of successful sets in brackets, 'NS' = unsampled strat
					vey Data (Enge	
		Area	Area			
	Depth range	(sq.n.mi.)	(sq.n.mi.)	1993	1994	
tratum		1978-1992	1993-Onwards			
209	201-300	1608	680	0.0 (3)	0.0 (2)	
210	201-300	774	1035	0.0 (4)	0.0 (6)	
213	201-300	1725	1583	0.3 (6)	0.3 (3)	
214	201-300	1171	1341	0.0 (5)	0.2 (6)	
215	201-300	1270	1302	1.0 (5)	0.2 (5)	
228	201-300	1428	2196	0.3 (9)	0.7 (3)	
203	301-400	480	487	1.0 (2)	0.0 (2)	
208	301-400	448	588	0.0 (2)	0.0 (3)	Note: Survey area was restratified based on revised
211	301-400	330	251	0.0 (2)	0.0 (3)	ivote. Gai vey area was restratified based off revised
216	301-400	384	360	4.0 (2)	1.5 (2)	hydrography charts and implemented on the 1993 survey
222	301-400	441	450	1.5 (2)	3.3 (3)	hydrography draits and implemented on the 1993 survey
229	301-400	567	536	7.0 (2)	0.3 (3)	For further information see Bishop (1994), Murphy (1996))
204	401-500	354	288	0.5 (2)	4.3 (3)	i of further information see dishop (1994), Murphy (1990))
217	401-500	268	241	28.5 (2)	29.7 (3)	
223	401-500	180	158	22.6 (2)	3.0 (3)	
227	401-500	686	598	12.8 (3)	3.8 (5)	
235	401-500	420	414	4.0 (3)	10.7 (3)	
212	501-750	664	557	5.0 (2)	2.0 (3)	
218	501-750	420	362	25.0 (2)	34.0 (2)	
224	501-750	270	228	77.0 (2)	49.3 (3)	
230	501-750	237	185	9.0 (2)	74.0 (3)	
219	751-1000	213	283	10.5 (2)	0.5 (2)	
231	751-1000	182	186	2.5 (2)	2.7 (3)	
236	751-1000	122	193	5.0 (2)	0.7 (3)	
	Stratified An	alysis:	Upper	18.6	11.7	
			Mean	4.4	4.1	
			Lower	-9.7	-3.4	
	Tot	al Survey Abu	ndance (millions)	4.905	4.6	ann das Fautuslants)
			indance (millions)	4.905 Converted S	4.6 Survey Data (Ca	ampelen Equivalents)
·+p-q+	Depth range	Area	ndance (millions) Area	4.905	4.6	ampelen Equivalents)
	Depth range (m)	Area (sq.n.mi.)	Area (sq.n.mi.)	4.905 Converted S 1993	4.6 Survey Data (Ca 1994	ampelen Equivalents)
tratum 209	Depth range (m) 201-300	Area (sq.n.mi.) 1608	Area (sq.n.mi.)	4.905 Converted S 1993 0.0 (3)	4.6 Survey Data (Ca 1994 0.0 (2)	ampelen Equivalents)
209 210	Depth range (m) 201-300 201-300	Area (sq.n.mi.) 1608 774	Area (sq.n.mi.) 680 1035	4.905 Converted S 1993 0.0 (3) 0.0 (4)	4.6 Survey Data (Ca 1994 0.0 (2) 0.0 (6)	ampelen Equivalents)
209 210 213	Depth range (m) 201-300 201-300 201-300	Area (sq.n.mi.) 1608 774 1725	Area (sq.n.mi.) 680 1035 1583	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6)	4.6 Survey Data (Ca 1994 0.0 (2) 0.0 (6) 0.3 (3)	ampelen Equivalents)
209 210 213 214	Depth range (m) 201-300 201-300 201-300 201-300	Area (sq.n.mi.) 1608 774 1725 1171	Area (sq.n.mi.) 680 1035 1583 1341	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5)	4.6 Survey Data (Ca 1994 0.0 (2) 0.0 (6) 0.3 (3) 0.3 (6)	ampelen Equivalents)
209 210 213 214 215	Depth range (m) 201-300 201-300 201-300 201-300 201-300	Area (sq.n.mi.) 1608 774 1725 1171 1270	Area (sq.n.mi.) 680 1035 1583 1341 1302	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5)	4.6 Survey Data (Ca 1994 0.0 (2) 0.0 (6) 0.3 (3) 0.3 (6) 1.2 (5)	ampelen Equivalents)
209 210 213 214 215 228	Depth range (m) 201-300 201-300 201-300 201-300 201-300 201-300	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9)	4.6 Survey Data (Ca 1994 0.0 (2) 0.0 (6) 0.3 (3) 0.3 (6) 1.2 (5) 4.3 (3)	ampelen Equivalents)
209 210 213 214 215 228 203	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428 480	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2)	4.6 Survey Data (Ca 1994 0.0 (2) 0.0 (6) 0.3 (3) 0.3 (6) 1.2 (5) 4.3 (3) 0.0 (2)	ampelen Equivalents)
209 210 213 214 215 228 203 208	Depth range (m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428 480 448	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2)	4.6 Survey Data (Ca 1994 0.0 (2) 0.0 (6) 0.3 (3) 0.3 (6) 1.2 (5) 4.3 (3) 0.0 (2) 0.0 (3)	ampelen Equivalents)
209 210 213 214 215 228 203 208 211	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428 480 448 330	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 0.0 (2)	4.6 Survey Data (Ca 1994 0.0 (2) 0.0 (6) 0.3 (3) 0.3 (6) 1.2 (5) 4.3 (3) 0.0 (2) 0.0 (3) 0.0 (3)	ampelen Equivalents)
209 210 213 214 215 228 203 208 211 216	Depth range (m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428 480 448 330 384	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 0.0 (2) 10.5 (2)	4.6 Survey Data (Ca 1994 0.0 (2) 0.0 (6) 0.3 (3) 0.3 (6) 1.2 (5) 4.3 (3) 0.0 (2) 0.0 (3) 0.0 (3) 6.0 (2)	ampelen Equivalents)
209 210 213 214 215 228 203 208 211 216 222	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428 480 448 330 384 441	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360 450	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2)	4.6 Carrey Data (Carrey Data	ampelen Equivalents)
209 210 213 214 215 228 203 208 211 216 222 229	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360 450 536	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2)	4.6 Survey Data (Ca 1994 0.0 (2) 0.0 (6) 0.3 (3) 0.3 (6) 1.2 (5) 4.3 (3) 0.0 (2) 0.0 (3) 0.0 (3) 6.0 (2) 8.0 (3) 3.7 (3)	ampelen Equivalents)
209 210 213 214 215 228 203 208 211 216 222 229 204	Depth range (m) (1) 201-300 (201-300 (201-300 (201-300 (201-300 (201-300 (301-400 (301-400 (301-400 (301-400 (301-400 (401-500 (4	Area (sq.n.ml.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360 450 536 288	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2) 1.5 (2)	4.6 Survey Data (Ca 1994 0.0 (2) 0.0 (6) 0.3 (3) 0.3 (6) 1.2 (5) 4.3 (3) 0.0 (2) 0.0 (3) 0.0 (3) 6.0 (2) 8.0 (3) 3.7 (3) 14.3 (3)	ampelen Equivalents)
209 210 213 214 215 228 203 208 211 216 222 229 204 217	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 401-500	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567 354 268	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360 450 536 288 241	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2) 1.5 (2) 70.0 (2)	4.6 Carry Data (Carry Data (ampelen Equivalents)
209 210 213 214 215 228 203 208 211 216 222 229 204 217 223	Depth range (m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 401-500 401-500	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567 354 268 180	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360 450 536 288 241	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2) 1.5 (2) 70.0 (2) 52.5 (2)	4.6 Carrey Data (Carrey Data	ampelen Equivalents)
209 210 213 214 215 228 203 208 211 216 222 229 204 217 223 227	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 401-500 401-500 401-500 401-500	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567 354 268 180 686	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360 450 536 288 241 158 598	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2) 1.5 (2) 70.0 (2) 52.5 (2) 26.7 (3)	4.6 Carrey Data (Carrey Data	ampelen Equivalents)
209 210 213 214 215 228 203 208 211 216 222 229 204 217 223 227 235	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 401-500 401-500 401-500 401-500 401-500 401-500 401-500 401-500	Area (sq.n.ml.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567 354 268 180 686 420	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360 450 536 288 241 158 598	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2) 1.5 (2) 70.0 (2) 26.7 (3) 9.0 (3)	4.6 Care Car	ampelen Equivalents)
209 210 213 214 215 228 203 208 211 216 222 229 204 217 223 227 235 212	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 401-500 401-500 401-500 401-500 501-750	Area (sq.n.ml.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567 354 268 180 686 420 664	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360 450 536 288 241 158 598 414	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2) 1.5 (2) 70.0 (2) 26.7 (3) 9.0 (3) 12.0 (2)	4.6 Carrey Data Carrey Dat	ampelen Equivalents)
209 210 213 214 215 228 203 208 211 216 222 229 204 217 223 227 235 212	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 401-500 401-500 401-500 401-500 501-750	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567 354 268 180 686 420 664 420	Area (sq.n.mi.) 680 1035 1583 1583 1341 1302 2196 487 588 251 360 450 536 288 241 158 598 414 557	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2) 70.0 (2) 52.5 (2) 26.7 (3) 9.0 (3) 12.0 (2) 48.0 (2)	4.6 Carrey Data (Carrey Data	ampelen Equivalents)
209 210 213 214 215 228 203 208 211 216 222 204 217 223 227 235 212 218 224	Depth range (m) (201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 401-500 401-500 401-500 401-500 501-750 501-750 501-750	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567 354 268 180 686 420 664 420 270	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360 450 536 288 241 158 598 414 557 362 228	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2) 1.5 (2) 70.0 (2) 52.5 (2) 26.7 (3) 9.0 (3) 12.0 (2) 48.0 (2) 162.5 (2)	4.6 Care Car	ampelen Equivalents) I I I I I I I I I I I I I I I I I I I
209 210 213 214 215 228 203 201 216 222 229 204 217 223 227 223 227 212 218 224 230	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 401-500 401-500 401-500 401-500 501-750 501-750 501-750	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567 354 268 180 686 420 664 420 270 237	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360 450 536 288 241 158 598 414 557 362 228 185	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2) 70.0 (2) 52.5 (2) 26.7 (3) 9.0 (3) 12.0 (2) 48.0 (2) 162.5 (2) 17.0 (2)	4.6 Care Car	ampelen Equivalents)
209 210 213 214 215 228 208 211 216 222 229 2204 217 223 227 235 212 218 224 230 219	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 401-500 401-500 401-500 501-750 501-750 501-750 751-1000	Area (sq.n.ml.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567 354 268 180 686 420 664 420 270 237	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360 450 536 288 241 158 598 414 557 362 228 185	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2) 1.5 (2) 70.0 (2) 26.7 (3) 9.0 (3) 12.0 (2) 48.0 (2) 17.0 (2) 17.0 (2)	4.6 Care Car	ampelen Equivalents)
209 210 213 214 215 228 208 211 216 222 229 204 217 223 227 235 212 212 224 230 221 231	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 401-500 401-500 401-500 501-750 501-750 501-750 751-1000	Area (sq.n.ml.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567 354 268 180 686 420 664 420 270 237 213 182	Area (sq.n.mi.) 680 1035 1583 1583 1341 1302 2196 487 588 251 360 450 536 288 241 158 598 414 557 362 228 185 283	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2) 70.0 (2) 52.5 (2) 26.7 (3) 9.0 (3) 12.0 (2) 48.0 (2) 162.5 (2) 17.0 (2) 3.5 (2)	4.6 Care Car	ampelen Equivalents)
209 210 213 214 215 228 208 211 216 222 229 204 217 223 227 235 212 218 229 212 212 213 227	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 401-500 401-500 401-500 501-750 501-750 501-750 751-1000 751-1000 751-1000	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567 354 268 180 686 420 664 420 270 237 213 182 122	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360 450 536 288 241 158 598 414 557 362 228 185 283 186 193	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2) 1.5 (2) 70.0 (2) 52.5 (2) 26.7 (3) 9.0 (3) 12.0 (2) 48.0 (2) 162.5 (2) 17.0 (2) 3.5 (2) 8.0 (2)	4.6 Career Career	ampelen Equivalents).
209 210 213 214 215 228 208 211 216 222 229 204 217 223 227 235 212 212 224 230 221 231	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 401-500 401-500 401-500 501-750 501-750 501-750 751-1000	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567 354 268 180 686 420 664 420 270 237 213 182 122	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360 450 536 288 241 158 598 414 557 362 228 185 283 186 193 Upper	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2) 1.5 (2) 70.0 (2) 52.5 (2) 26.7 (3) 9.0 (3) 12.0 (2) 48.0 (2) 162.5 (2) 17.0 (2) 3.5 (2) 8.0 (2) 40.3	4.6 Career Career	ampelen Equivalents)
209 210 213 214 215 228 208 211 216 222 229 204 217 223 227 235 212 212 224 230 221 231	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 401-500 401-500 401-500 501-750 501-750 501-750 751-1000 751-1000 751-1000	Area (sq.n.mi.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567 354 268 180 686 420 664 420 270 237 213 182 122	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360 450 536 288 241 158 598 414 557 362 228 185 283 186 193 Upper Mean	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2) 1.5 (2) 70.0 (2) 52.5 (2) 26.7 (3) 9.0 (3) 12.0 (2) 48.0 (2) 162.5 (2) 17.0 (2) 3.5 (2) 40.3 10.0	4.6 Care Car	ampelen Equivalents)
209 210 213 214 215 228 208 211 216 222 229 204 217 223 227 235 212 212 224 230 221 231	Depth range (m) 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 401-500 401-500 401-500 501-750 501-750 501-750 751-1000 751-1000 Stratified An	Area (sq.n.ml.) 1608 774 1725 1171 1270 1428 480 448 330 384 441 567 354 268 180 686 420 664 420 270 237 213 182 122 alysis:	Area (sq.n.mi.) 680 1035 1583 1341 1302 2196 487 588 251 360 450 536 288 241 158 598 414 557 362 228 185 283 186 193 Upper	4.905 Converted S 1993 0.0 (3) 0.0 (4) 0.5 (6) 0.0 (5) 3.8 (5) 2.1 (9) 3.0 (2) 0.0 (2) 10.5 (2) 4.5 (2) 21.0 (2) 21.5 (2) 26.7 (3) 9.0 (3) 12.0 (2) 48.0 (2) 162.5 (2) 17.0 (2) 17.0 (2) 3.5 (2) 48.0 (2) 17.0 (2) 17.0 (2) 3.5 (2) 40.3 10.0 -20.2	4.6 Career Career	ampelen Equivalents)

Table 3. Mean weight (kg) of redfish per standard tow in Division 2J from 1978-1992. Upper panel show results of the Engels 145 otter trawl (MV Gadus Atlantica, 30 min tow @ 3.5 knots Lower panel show Campelen trawl convertion based on comparative fishing trials (CCGS Teleost, 15 min tow @ 3.0 knots) Number of successful sets in brackets, 'NS' = unsampled

strata.																	
	Danth range	A	1978	1979	1980	1981	1982	Original Surv 1983	ey Data (Eng 1984	gel 145) 1985	1986	1987	1988	1989	1990	1991	1992
Stratum	Depth range (m)	Area (sq.n.mi.)	1978	19/9	1980	1981	1982	1983	1984	1985	1980	1987	1988	1989	1990	1991	1992
209	201-300	1608	0.1 (2)	0.0 (2)	3.7 (2)	0.5 (6)	0.0 (11)	0.1 (7)	0.1 (7)	0.1 (9)	0.0 (7)	0.0 (8)	0.0 (5)	0.0 (8)	0.0 (6)	0.0 (7)	0.0 (5)
210	201-300	774	1.5 (3)	3.2 (2)	1.0 (2)	0.0 (3)	2.9 (6)	0.8 (2)	2.0 (4)	0.0 (4)	0.1 (3)	0.2 (4)	0.5 (3)	0.0 (4)	0.0 (3)	0.1 (7)	0.2 (7)
213	201-300	1725	55.0 (3)	85.9 (3)	0.4 (3)	2.8 (6)	4.6 (10)	92.8 (10)	42.3 (5)	1.0 (9)	0.0 (9)	0.5 (9)	0.4 (8)	0.0 (9)	0.1 (8)	0.1 (14)	0.0 (19)
214	201-300	1171	75.2 (3)	4.5 (2)	0.0 (2)	54.1 (5)	28.2 (8)	32.0 (8)	0.4 (4)	0.7 (6)	1.6 (6)	1.6 (6)	2.7 (6)	0.2 (6)	0.2 (5)	0.1 (15)	0.2 (14)
215	201-300	1270	9.6 (3)	6.0 (2)	7.5 (2)	1.2 (5)	0.4 (9)	1.7 (8)	2.3 (3)	0.2 (6)	1.4 (5)	0.3 (7)	0.1 (7)	0.1 (6)	0.2 (6)	0.1 (15)	0.2 (10)
228	201-300	1428	28.0 (3)	3.3 (2)	437.5 (2)	1548.5 (6)	31.6 (10)		88.4 (7)	0.0 (7)	17.9 (6)	6.6 (7)	5.8 (5)	1.6 (8)	1.1 (6)	0.7 (3)	0.2 (5)
203 208	301-400 301-400	480 448	1.3 (2) 42.4 (2)	0.7 (2) 1540.4 (2)	3.3 (2) 17.8 (2)	0.8 (2) 26.0 (2)	2.4 (3) 7.2 (3)	1.5 (3) 2.9 (2)	3.8 (2) 20.0 (3)	0.1 (3)	0.3 (2) 0.2 (2)	0.0 (3) 0.6 (2)	0.0 (2)	0.5 (3) 1.7 (2)	0.0 (2) 0.0 (2)	0.0 (3)	0.0 (3) 0.7 (3)
211	301-400	330	18.8 (2)	19.3 (2)	46.0 (2)	987.0 (2)	13.8 (2)	0.1 (2)	38.3 (2)	11.5 (3) 64.8 (3)	0.2 (2)	3.5 (2)	1.2 (2) 1.1 (2)	2.4 (2)	0.7 (2)	0.1 (3) 0.4 (5)	0.7 (3)
216	301-400	384	2209.5 (2)	267.7 (2)	590.2 (2)	69.5 (2)	195.8 (2)	133.7 (3)	272.5 (2)	70.6 (2)	227.1 (2)	141.5 (2)	50.0 (2)	8.4 (2)	3.1 (2)	2.5 (3)	1.7 (3)
222	301-400	441	1331.5 (2)	303.0 (2)	402.5 (2)	1033.8 (2)	582.0 (3)	963.5 (3)	303.3 (3)	152.5 (2)	47.1 (2)	63.0 (2)	1064.3 (2)	6.2 (2)	1.9 (2)	0.4 (3)	1.8 (3)
229	301-400	567	69.6 (2)	181.4 (2)	285.3 (2)	769.3 (2)	432.9 (4)	364.1 (4)	131.8 (3)	50.2 (3)	321.5 (3)	6.7 (3)	2.1 (3)	26.1 (3)	3.3 (2)	1.5 (3)	1.5 (3)
204	401-500	354	5.7 (2)	7.0 (2)	NS	3.4 (2)	0.4 (3)	2.6 (3)	5.0 (2)	0.0 (2)	0.2 (2)	0.0 (2)	0.3 (2)	0.6 (2)	2.2 (2)	0.6 (3)	0.1 (3)
217	401-500	268	704.9 (2)	164.3 (2)	470.6 (2)	73.8 (2)	214.0 (2)	239.8 (2)	NŚ	73.5 (2)	181.6 (2)	92.5 (2)	272.8 (2)	20.2 (2)	22.6 (2)	4.9 (3)	13.8 (3)
223	401-500	180	1131.3 (2)	221.9 (2)	538.5 (2)	459.2 (2)	358.2 (2)	271.0 (2)	247.0 (2)	328.8 (2)	606.8 (2)	76.3 (2)	449.3 (2)	28.7 (2)	7.4 (2)	6.6 (3)	4.8 (3)
227	401-500	686	714.0 (2)	148.5 (2)	159.3 (2)	8.0 (2)	99.9 (5)	70.9 (4)	57.3 (3)	45.5 (4)	199.2 (3)	38.9 (4)	5.0 (3)	5.2 (4)	105.5 (3)	5.0 (6)	5.6 (6)
235	401-500	420	3.0 (2)	17.0 (2)	23.5 (2)	4.3 (2)	6.2 (3)	13.3 (2)	38.0 (3)	5.0 (2)	1.0 (2)	8.5 (2)	15.3 (2)	1.4 (2)	52.4 (2)	4.5 (3)	1.1 (3)
212	501-750	664	3.4 (2)	4.8 (2)	0.6 (2)	2.8 (2)	3.4 (5)	2.7 (3)	9.0 (3)	1.6 (4)	2.6 (3)	0.8 (4)	0.0 (2)	0.2 (4)	0.7 (3)	4.8 (2)	1.1 (2)
218	501-750	420	611.7 (2)	NS	314.5 (2)	92.0 (2)	55.5 (2)	99.3 (2)	NS	41.3 (2)	44.3 (2)	194.0 (2)	245.8 (2)	54.0 (2)	24.8 (2)	3.4 (2)	27.3 (2)
224	501-750	270	836.9 (2)	425.0 (2)	293.3 (2)	204.8 (2)	99.0 (2)	110.8 (2)	114.5 (2)	26.3 (2)	151.4 (2)	138.0 (2)	326.3 (2)	9.8 (2)	5.6 (2)	7.0 (2)	9.6 (2)
230	501-750	237	1160.5 (2)	NS	196.5 (2)	79.8 (2)	134.2 (2)	74.5 (2)	63.3 (2)	72.0 (2)	326.5 (2)	151.0 (2)	50.3 (2)	80.3 (2)	141.0 (2)	25.2 (2)	15.0 (2)
219 231	751-1000 751-1000	213 182	NS 0.0 (2)	NS NS	NS 3.0 (2)	8.0 (2) NS	NS	1.9 (2)	NS 17.0 (2)	0.0 (2)	(2) 6.2 (2)	0.2 (2) 1.6 (2)	1.5 (2)	0.0 (2) NS	2.6 (2)	0.0 (2)	0.7 (2)
236	751-1000	122	0.0 (2) NS	NS NS	3.0 (2) NS	3.8 (2)	3.5 (2) 2.8 (2)	2.3 (2) 3.0 (2)	17.8 (2) 4.8 (2)	9.8 (2) 12.5 (2)	6.2 (2)	2.4 (2)	5.3 (2) 0.0 (2)	NS NS	0.0 (2) 0.4 (2)	0.7 (2) 0.0 (2)	2.1 (2) 1.6 (2)
	Analysis:	Upper	370.0	779.7	468.9	659.6	114.7	172.8	71.6	43.2	81.9	40.8	249.0	9.8	20.9	2.2	2.5
Cadane	a / undayono.	Mean	224.8	112.7	131.4	260.4	66.1	88.3	50.8	21.2	51.8	22.2	59.5	5.9	10.6	1.6	2.2
		Lower	79.6	-554.3	-206.1	-138.7	17.4	3.8	30.0	-0.8	21.7	3.5	-129.9	1.9	0.4	1.1	1.8
Total S	Survey Biomas			113.9	137.6	282.7	71.5	97.1	52.4	23.3	57.0	24.4	65.4	6.3	11.7	1.8	2.4
	Depth range	Area	1978	1979	1980	1981	1982	Converted S 1983	urvey Data (0 1984	Campelen Ed 1985	quivalents) 1986	1987	1988	1989	1990	1991	1992
Stratum	(m)	(sq.n.mi.)	1976	1979	1980	1901	1902	1903	1904	1903	1900	1967	1900	1909	1990	1991	1992
209	201-300	1608	0.4 (2)	0.0 (2)	3.6 (2)	0.4 (6)	0.0 (11)	0.2 (7)	0.1 (7)	0.1 (9)	0.0 (7)	0.1 (8)	0.0 (5)	0.0 (8)	0.0 (6)	0.0 (7)	0.0 (5)
210	201-300	774	10.6 (3)	4.4 (2)	1.8 (2)	0.0 (3)	5.7 (6)	0.7 (2)	6.0 (4)	0.1 (4)	0.2 (3)	0.0 (4)	1.4 (3)	0.0 (4)	0.0 (3)	0.1 (7)	0.4 (7)
213	201-300	1725	107.8 (3)	129.7 (3)	0.6 (3)	4.7 (6)	6.5 (10)		73.7 (5)	1.1 (9)	0.0 (9)	0.8 (9)	0.6 (8)	0.0 (9)	0.2 (8)	0.2 (14)	0.0 (19)
214	201-300	1171	131.8 (3)	4.6 (2)	0.0 (2)	79.6 (5)	41.0 (8)	45.3 (8)	0.5 (4)	1.0 (6)	2.4 (6)	1.8 (6)	3.3 (6)	0.3 (6)	0.4 (5)	0.3 (15)	0.4 (14)
215	201-300	1270	13.2 (3)	7.8 (2)	13.1 (2)	1.5 (5)	1.1 (9)	2.7 (8)	3.1 (3)	0.5 (6)	2.8 (5)	0.3 (7)	0.2 (7)	0.2 (6)	0.6 (6)	0.1 (15)	0.4 (10)
228	201-300	1428	67.1 (3)	4.6 (2)	597.6 (2)	2399.7 (6)	53.8 (10)	133.7 (6)	127.5 (7)	0.0 (7)	24.3 (6)	9.5 (7)	8.1 (5)	2.9 (8)	2.3 (6)	1.0 (3)	1.0 (5)
203	301-400	480	5.3 (2)	2.2 (2)	7.9 (2)	2.4 (2)	4.4 (3)	4.7 (3)	6.7 (2)	0.7 (3)	0.4 (2)	0.1 (3)	0.0 (2)	0.8 (3)	0.0 (2)	0.0 (3)	0.0 (3)
208 211	301-400 301-400	448 330	71.1 (2) 25.3 (2)	1507.5 (2) 24.0 (2)	21.2 (2) 47.4 (2)	6.9 (2) 778.5 (2)	10.5 (3) 23.5 (2)	5.4 (2) 0.3 (2)	29.8 (3) 58.6 (2)	17.5 (3) 89.1 (3)	0.3 (2) 1.0 (2)	1.2 (2) 4.8 (2)	1.2 (2) 1.1 (2)	2.0 (2) 4.5 (2)	0.0 (2) 1.1 (2)	0.4 (3) 0.6 (5)	1.1 (3) 0.6 (6)
216	301-400	384	2564.8 (2)	368.0 (2)	1068.8 (2)	105.5 (2)	281.5 (2)	197.3 (3)	335.3 (2)	109.7 (2)	357.2 (2)	218.2 (2)	70.4 (2)	18.8 (2)	3.8 (2)	4.3 (3)	3.5 (3)
222	301-400	441	1965.9 (2)	483.2 (2)	616.7 (2)	1504.7 (2)	970.2 (3)	1413.8 (3)	452.7 (3)	223.5 (2)	63.7 (2)	78.4 (2)	1438.5 (2)	10.1 (2)	3.2 (2)	0.6 (3)	3.7 (3)
229	301-400	567	94.3 (2)	239.4 (2)	385.9 (2)	984.0 (2)	668.5 (4)	579.8 (4)	176.4 (3)	147.2 (3)	408.2 (3)	10.1 (3)	3.0 (3)	37.0 (3)	5.1 (2)	5.7 (3)	3.3 (3)
204	401-500	354	10.5 (2)	6.3 (2)	. NS	6.5 (2)	0.8 (3)	6.3 (3)	9.9 (2)	0.0 (2)	0.2 (2)	0.0 (2)	0.2 (2)	0.9 (2)	3.6 (2)	0.8 (3)	0.3 (3)
217	401-500	268	1049.1 (2)	235.6 (2)	579.9 (2)	92.0 (2)	284.0 (2)	302.9 (2)	NS	93.7 (2)	235.9 (2)	121.1 (2)	349.7 (2)	26.9 (2)	51.9 (2)	9.1 (3)	34.3 (3)
223	401-500	180	1572.3 (2)	308.7 (2)	716.9 (2)	565.6 (2)	427.6 (2)	332.4 (2)	342.7 (2)	382.1 (2)	653.9 (2)	95.3 (2)	489.1 (2)	41.6 (2)	13.5 (2)	11.9 (3)	10.8 (3)
227	401-500	686	963.0 (2)	157.0 (2)	158.4 (2)	11.1 (2)	119.0 (5)	86.8 (4)	72.6 (3)	57.6 (4)	205.7 (3)	40.1 (4)	6.6 (3)	7.2 (4)	135.0 (3)	10.2 (6)	11.6 (6)
235	401-500	420	5.1 (2)	24.2 (2)	26.5 (2)	5.4 (2)	9.0 (3)	17.1 (2)	49.5 (3)	7.3 (2)	2.3 (2)	10.7 (2)	19.5 (2)	1.6 (2)	56.9 (2)	7.0 (3)	2.3 (3)
212	501-750	664	3.0 (2)	6.5 (2)	0.9 (2)	2.9 (2)	4.5 (5)	4.1 (3)	11.3 (3)	3.0 (4)	3.8 (3)	1.0 (4)	0.0 (2)	0.4 (4)	1.4 (3)	7.2 (2)	2.2 (2)
218	501-750	420	691.8 (2)	NS	363.7 (2)	106.0 (2)	61.7 (2)	115.9 (2)	NS NS	52.3 (2)	45.4 (2)	221.1 (2)	232.3 (2)	69.2 (2)	33.2 (2)	4.9 (2)	61.8 (2)
224 230	501-750 501-750	270 237	853.6 (2)	476.5 (2) NS	339.3 (2)	234.0 (2)	106.4 (2)	119.2 (2)	141.3 (2)	26.4 (2) 77.7 (2)	157.4 (2)	144.3 (2)	317.8 (2)	13.2 (2)	7.8 (2)	12.5 (2)	15.1 (2)
219	751-1000	237	1414.1 (2) NS	NS NS	193.3 (2) NS	88.5 (2) 9.1 (2)	144.7 (2) NS	78.4 (2) 2.0 (2)	80.2 (2) NS	0.0 (2)	336.5 (2) 15.3 (2)	156.3 (2) 0.4 (2)	42.6 (2) 1.6 (2)	83.8 (2) 0.0 (2)	172.3 (2) 3.6 (2)	37.8 (2) 0.0 (2)	25.2 (2) 0.7 (2)
231	751-1000	182	0.0 (2)	NS NS	2.3 (2)	9.1 (2) NS	3.4 (2)	3.3 (2)	22.3 (2)	13.9 (2)	5.9 (2)	1.7 (2)	5.8 (2)	0.0 (2) NS	0.0 (2)	0.0 (2)	2.7 (2)
236	751-1000	122	0.0 (2) NS	NS	2.5 (2) NS	4.9 (2)	3.5 (2)	3.2 (2)	5.3 (2)	13.7 (2)	5.4 (2)	2.6 (2)	0.0 (2)	NS	0.3 (2)	0.0 (2)	1.7 (2)
	Analysis:	Upper	411.3	812.8	715.6	981.6	172.9	253.0	101.9	53.5	98.7	51.3	322.1	11.6	26.5	3.9	5.3
	, .	Mean	299.0	133.3	179.4	368.3	97.2	127.5	71.9	31.1	62.2	27.0	73.2	7.9	13.9	2.9	4.6
		Lower	186.6	-546.3	-356.8	-245.0	21.6	2.1	41.9	8.7	25.6	2.7	-175.8	4.2	1.3	1.8	3.8
Convert	ed Survey Bio	om('000 tons)	618.8	246.9	344.4	732.6	4020	0500	405.0	CO 7	4050	54.4	4474	15.6	28.0	5.7	9.2
2J Au	ca oarvey bre	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.10.0	240.9	344.4	7 32.0	193.0	256.9	135.9	62.7	125.2	34.4	147.4	13.0	28.0	3.7	

Table 4. Mean number of redfish per standard tow in Division 2J from 1993-1994. Upper panel shows results of the Engels 145 otter trawl (MV Gadus Atlantica, 30 min tow @ 3.5 knots). Lower panel show Campelen trawl convertion based on comparative fishing trials (CCGS Teleost, 15 min tow @ 3.0 knots) Number of successful sets in brackets, 'NS' = unsampled strata. Original Survey Data (Engel 145) Area 1993 1994 Depth range (sq.n.mi.) (sq.n.mi.) Stratum (m) 1978-1992 1993-Onwards 201-300 0.0 (3) 0.0 (2) 209 1608 680 201-300 774 1035 0.0(4)0.0(6)213 201-300 1725 1583 0.0 (6) 0.4 (3) 214 201-300 1171 1341 0.0 (5) 0.0 (6) 215 201-300 1270 1302 0.1 (5) 0.0 (5) 2196 0.0 (9) 228 201-300 1428 0.1 (3) 301-400 487 480 0.1 (2) 0.0(2)208 301-400 588 Note: Survey area was restratified based on revised 448 0.0 (2) 0.0 (3) 211 301-400 330 251 0.0(2) 0.0(3)216 301-400 384 360 0.8 (2) 0.1 (2) hydrography charts and implemented on the 1993 survey 222 450 301-400 441 0.4 (2) 1.2 (3) 229 301-400 567 536 1.1 (2) 0.0(3)For further information see Bishop (1994), Murphy (1996)) 204 401-500 288 0.1 (2) 0.4 (3) 354 217 401-500 268 241 5.2 (2) 6.5 (3) 223 401-500 180 158 4.8 (2) 1.1 (3) 227 686 598 401-500 3.4 (3) 1.2 (5) 235 401-500 420 414 1.0 (3) 2.6 (3) 212 501-750 664 557 1.3 (2) 0.4 (3) 218 501-750 420 362 7.7 (2) 9.4 (2) 224 501-750 270 228 18.0 (2) 12.4 (3) 230 501-750 237 185 2.7(2)20.8 (3) 219 751-1000 213 283 4.3 (2) 0.2 (2) 1.3 (2) 231 751-1000 182 186 1.2 (3) 751-1000 122 193 2.1 (2) 0.3(3)Stratified Analysis: Upper 4.6 1.9 1.1 Mean 1.1 -2.5 0.3 Total Survey Biomass ('000 tons) 1.2 1.2 Converted Survey Data (Campelen Equivalents) Depth range 1993 Stratum (sa.n.mi.) (m) (sa.n.mi.) 0.0 (3) 0.0 (2) 209 201-300 1608 680 210 201-300 774 1035 0.0 (4) 0.0 (6) 213 201-300 1725 1583 0.3 (6) 0.4 (3) 201-300 1171 1341 0.0 (5) 0.1 (6) 215 201-300 1270 1302 0.3 (5) 0.1 (5) 2196 228 201-300 1428 0.1 (9) 0.3(3)203 301-400 480 487 0.4 (2) 0.0(2)208 301-400 448 588 0.0(2) 0.0(3)301-400 330 251 0.0(2) 0.0 (3) 1.7 (2) 216 301-400 384 360 0.4 (2) 222 441 450 301-400 0.9(2)1.6 (3) 229 301-400 536 567 2.5 (2) 0.1 (3) 204 401-500 354 288 0.2(2)1.5 (3) 217 401-500 268 241 12.3 (2) 13.3 (3) 223 401-500 180 158 10.5 (2) 1.7 (3) 227 401-500 686 598 6.1 (3) 1.9 (5) 235 401-500 420 414 1.9 (3) 4.7 (3) 212 501-750 664 557 2.0 (2) 0.9(3)218 501-750 420 362 13.2 (2) 16.7 (2) 224 501-750 270 228 36.3 (2) 23.2 (3) 230 501-750 237 185 4.5 (2) 37.1 (3) 219 751-1000 283 6.1 (2) 213 0.2 (2) 751-1000 182 186 1.5 (2) 1.7 (3) 751-1000 122 193 2.7 (2) 0.4 (3) Stratified Analysis: 8.9 5.8 Upper 2.1 2.0 -4.7 -1.9 Converted Survey Biomass ('000 tons) 4.2 4.0

2J Autumn 1993-1994 Mean Weight (kg) per tow

Table 5. Mean number of redfish per standard tow in Division 3K from 1978-1992. Upper panel show results of the Engels 145 otter trawl (MV Gadus Atlantica, 30 min tow @ 3.5 knots). Lower panel show Campelen trawl convertion based on comparative fishing trials (CCGS Teleost, 15 min tow @ 3.0 knots) Number of successful sets in brackets, 'NS' = unsampled

strata.																	
	Depth range	Area	1978	1979	1980	1981	1982	Original Surv 1983	ey Data (Eng 1984	jel 145) 1985	1986	1987	1988	1989	1990	1991	1992
Stratum	(m)	(sq.n.mi.)	1976	1979	1960	1961	1902	1903	1904	1903	1960	1901	1900	1909	1990	1991	1992
620	201-300	2709	43.8 (5)	19.3 (3)	12.0 (3)	7.4 (10)	0.3 (9)	4.7 (10)	0.2 (13)	0.6 (14)	0.0 (9)	0.4 (14)	0.3 (12)	0.9 (15)	0.0 (8)	0.4 (14)	0.0 (3)
621	201-300	2859	8.6 (5)	3.0 (3)	8.0 (3)	1.4 (11)			0.5 (14)	1.2 (15)	0.5 (14)	0.3 (12)	0.1 (10)	0.1 (17)		0.4 (5)	0.0 (3)
624	201-300	668	1171.0 (4)	173.0 (2)	11.5 (2)	18.0 (2)	5.3 (4)	3.8 (4)	15.8 (4)	3.0 (4)	4.5 (2)	2.3 (3)	2.3 (3)	1.3 (3)	3.0 (4)	0.0 (2)	0.3 (3)
634	201-300	1618	373.3 (4)	28.5 (2)	138.5 (2)	33.2 (7)	112.3 (11)	8899.8 (5)	48.6 (7)	27.6 (9)	45.4 (5)	12.9 (11)	10.5 (6)	13.6 (7)	0.0 (2)	2.8 (25)	0.4 (25)
635	201-300	1274	776.8 (4)	275.0 (3)	59.5 (2)	2927.2 (5)	6.0 (5)	4.3 (6)	43.6 (8)	13.0 (7)	6.3 (6)	4.0 (6)	3.2 (5)	30.1 (7)	NS	0.5 (4)	1.1 (3)
636	201-300	1455	964.8 (4)	118.5 (2)	3318.0 (2)	41.7 (6)	32.5 (10)		16.0 (8)	7.9 (8)	14.3 (4)	5.6 (7)	7.0 (6)	3.6 (5)	NS	0.3 (3)	0.7 (3)
637	201-300	1132	554.0 (5)	759.7 (3)	188.0 (2)	661.5 (6)	41.7 (7)	292.6 (5)	12.5 (6)	62.0 (7)	11.1 (4)	4.7 (6)	8.5 (8)	3.8 (5)	1.5 (2)	1.3 (6)	0.0 (3)
623	301-400	1027	51.0 (3)	NS	81.5 (2)	7.5 (4)	6.0 (5)	103.7 (6)	13.4 (5)	5.3 (6)	3.0 (4)	1.2 (5)	7.0 (5)	3.8 (6)	0.6 (5)	1.8 (6)	4.3 (3)
625	301-400	850	121.3 (3)	53.0 (2)	85.5 (2)	387.8 (4)	13.0 (2)	324.3 (3)	21.0 (5)	70.6 (5)	0.7 (3)	27.5 (4)	2.3 (4)	9.5 (4)	0.8 (4)	1.3 (3)	0.0 (3)
626	301-400	919	118.3 (3)	31.0 (2)	39.5 (2)	140.4 (5)	96.6 (5)	7.8 (4)	8.0 (6)	31.9 (5)	3.3 (4)	12.2 (5)	0.4 (5)	351.4 (5)	NS	2.3 (3)	0.3 (3)
628 629	301-400 301-400	1085 499	67.5 (2) 508.0 (3)	53.7 (3) NS	8.5 (2)	32.8 (6)	5.3 (6)	14.5 (6)	8.3 (7)	1.8 (6) 20.8 (4)	0.0 (3) 16.0 (3)	1.8 (5)	1.8 (5)	0.8 (4)	NS NS	0.7 (3)	0.0 (3)
630	301-400	544	305.5 (2)	102.0 (2)	87.5 (2) 46.0 (2)	49.0 (3) 19.0 (2)	29.5 (2) NS	2070.3 (3) 119.0 (2)	25.0 (4) 212.0 (3)	21.9 (4)	38.9 (2)	17.7 (3) 1.7 (3)	10.5 (2) 0.7 (3)	3.3 (3) 2.0 (3)	NS NS	3.0 (4) 1.0 (3)	1.3 (3) 4.2 (3)
633	301-400	2179	6191.8 (4)	82.3 (4)	413.0 (3)	219.3 (8)	1393.0 (7)	817.7 (12)	155.3 (10)	921.5 (12)	40.7 (8)	24.8 (11)	30.9 (8)	15.7 (10)		129.3 (25)	3.9 (25)
638	301-400	2059	478.0 (3)	182.0 (2)	857.3 (3)	121.3 (8)	81.6 (15)		166.8 (10)	105.6 (11)		96.5 (10)	840.9 (8)	33.1 (11)		7.3 (25)	1.0 (25)
639	301-400	1463	798.8 (4)	2118.5 (2)	392.0 (2)	95.8 (6)	553.1 (10)		753.9 (8)	733.0 (8)	1435.0 (6)	177.1 (7)	204.7 (6)	22.3 (8)	828.0 (3)	22.3 (3)	1.6 (25)
622	401-500	632	93.0 (2)	10.3 (3)	18.0 (2)	27.0 (2)	18.3 (3)	20.0 (2)	8.0 (4)	4.0 (4)	6.5 (2)	1.0 (3)	0.7 (3)	8.0 (3)	2.0 (2)	2.7 (3)	3.3 (3)
627	401-500	1184	4.5 (2)	25.7 (3)	45.5 (2)	7.0 (6)	16.0 (7)	23.0 (6)	12.4 (8)	3.7 (7)	2.6 (5)	2.0 (6)	1.0 (5)	31.2 (6)	NŚ	0.3 (3)	1.3 (3)
631	401-500	1202	10.0 (2)	28.0 (3)	50.3 (3)	19.0 (5)	9.0 (2)	47.8 (5)	431.8 (5)	167.1 (7)	13.6 (4)	8.7 (6)	14.5 (6)	18.7 (7)	10.0 (2)	9.7 (6)	23.3 (3)
640	401-500	198	1497.0 (2)	NS		410.5 (2)	480.5 (2)	NS	279.5 (2)	552.0 (3)	202.0 (2)	268.0 (2)	388.5 (2)	51.5 (2)	NS	42.7 (3)	7.3 (3)
645	401-500	204	1774.5 (2)	NS	1280.5 (2)	538.0 (2)	710.3 (3)	1659.5 (2)	141.5 (2)	1328.7 (3)	NS	423.0 (2)	589.0 (2)	1948.0 (2)	206.2 (2)	63.0 (3)	15.7 (3)
641	501-750	584	693.5 (2)	154.0 (2)	399.0 (2)	199.5 (2)	186.3 (4)	55.7 (3)	100.0 (3)	111.3 (4)	NS	52.3 (3)	NS	NS	NS	34.0 (2)	6.0 (2)
646	501-750	333	2411.0 (2)	20.5 (2)	115.5 (2)	149.5 (2)	1185.0 (2)	960.0 (2)	471.0 (2)	272.3 (3)	NS	341.5 (2)	NS	NS	14.5 (2)	166.7 (3)	53.3 (3)
642	751-1000	931	1.0 (2)	NS	4.5 (2)	1.3 (3)	3.8 (6)	NS	5.3 (6)	11.4 (5)	NS	1.8 (5)	NS	NS	NS	0.0 (2)	1.5 (2)
647	751-1000	409	23.0 (2)	0.5 (2)	34.1 (2)	6.5 (2)	0.5 (2)	NS	NS	205.9 (3)	NS	NS	NS	NS	10.8 (2)	25.0 (3)	1.0 (3)
Stratified	l Analysis:	Upper	1896.1	1499.8	2653.3	606.8	400.4	2542.8	174.3	256.3	294.6	53.1	244.8	254.4	398.7	31.7	6.4
		Mean Lower	745.3 -405.4	205.1 -1089.6	350.7 -1951.9	229.9 -146.9	190.0 -20.4	1090.3 -362.1	108.2 42.1	157.2 58.2	95.8 -103.1	32.6 12.2	92.2 -60.4	39.6 -175.3	84.1 -230.5	16.7 1.6	3.0 -0.4
Total Su	rvey Abundar		1719.4	421.5	737.5	483.6	391.9	2167.2	224.3	330.7	183.7	67.6	178.3	76.5	104.1	35.1	6.2
TOTAL SU	rvey Aburidar	ice (millions)	17 13.4	72 1.0	7 37 .0	400.0	331.3					07.0	170.5	7 0.0	104.1	30.1	V.Z
								Converted St	Jrvey Data (C	ampelen Eq	juivalents)						
Ctuetuus	Depth range		1978	1979	1980	1981	1982	1983	1984	ampelen Ed 1985	uivalents) 1986	1987	1988	1989	1990	1991	1992
Stratum	(m)	(sq.n.mi.)						1983	1984	1985	1986						
620	(m) 201-300	(sq.n.mi.) 2709	184.0 (5)	91.0 (3)	54.0 (3)	20.4 (10)	1.4 (9)	1983 10.4 (10)	1984 0.4 (13)	1985 4.7 (14)	0.0 (9)	1.4 (14)	3.2 (12)	4.5 (15)	0.0 (8)	1.4 (14)	0.0 (3)
620 621	(m) 201-300 201-300	(sq.n.mi.) 2709 2859	184.0 (5) 36.4 (5)	91.0 (3) 12.7 (3)	54.0 (3) 30.3 (3)	20.4 (10) 3.6 (11)	1.4 (9) 6.6 (14)	1983 10.4 (10) 2.1 (12)	0.4 (13) 2.1 (14)	4.7 (14) 7.9 (15)	0.0 (9) 3.9 (14)	1.4 (14) 1.3 (12)	3.2 (12) 0.5 (10)	4.5 (15) 0.4 (17)	0.0 (8) 1.3 NS	1.4 (14) 2.8 (5)	0.0 (3) 0.0 (3)
620 621 624	(m) 201-300 201-300 201-300	(sq.n.mi.) 2709 2859 668	184.0 (5) 36.4 (5) 5998.5 (4)	91.0 (3) 12.7 (3) 825.0 (2)	54.0 (3) 30.3 (3) 28.0 (2)	20.4 (10) 3.6 (11) 66.0 (2)	1.4 (9) 6.6 (14) 14.3 (4)	1983 10.4 (10) 2.1 (12) 25.5 (4)	0.4 (13) 2.1 (14) 47.5 (4)	4.7 (14) 7.9 (15) 15.0 (4)	0.0 (9) 3.9 (14) 27.0 (2)	1.4 (14) 1.3 (12) 15.3 (3)	3.2 (12) 0.5 (10) 14.0 (3)	4.5 (15) 0.4 (17) 11.3 (3)	0.0 (8) 1.3 NS 21.0 (4)	1.4 (14) 2.8 (5) 0.0 (2)	0.0 (3) 0.0 (3) 2.7 (3)
620 621 624 634	(m) 201-300 201-300 201-300 201-300	(sq.n.mi.) 2709 2859 668 1618	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5)	0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7)	4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9)	0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2)	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25)
620 621 624	(m) 201-300 201-300 201-300 201-300 201-300	(sq.n.mi.) 2709 2859 668 1618 1274	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6)	0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8)	4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7)	0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3)
620 621 624 634 635	(m) 201-300 201-300 201-300 201-300 201-300 201-300	(sq.n.mi.) 2709 2859 668 1618 1274 1455	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 4239.5 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6)	0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8)	4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8)	0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3)
620 621 624 634 635 636	(m) 201-300 201-300 201-300 201-300 201-300	(sq.n.mi.) 2709 2859 668 1618 1274	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5)	0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8)	4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7)	0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2)	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3)
620 621 624 634 635 636 637	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 4239.5 (2) 604.0 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6)	0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6)	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7)	0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (5)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3)
620 621 624 634 635 636 637 623 625 626	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 68.5 (2)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 4239.5 (2) 604.0 (2) 198.5 (2) 137.0 (2) 70.0 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 484.3 (4) 239.6 (5)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4)	1984 0.4 (13) 2.1 (14) 47.5 (4) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (5) 22.5 (6)	4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5)	0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 11.8 (4) 1.3 (3) 18.5 (4)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 19.7 (3) 0.0 (3) 1.0 (3)
620 621 624 634 635 636 637 623 625 626 628	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 107.5 (2)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 68.5 (2) 57.3 (3)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 4239.5 (2) 604.0 (2) 198.5 (2) 137.0 (2) 70.0 (2) 9.5 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 484.3 (4) 239.6 (5) 59.8 (6)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6)	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (5) 22.5 (6) 12.1 (7)	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 4.2 (6)	0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 11.3 (3) 18.5 (4) 0.0 (3)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 6.4 (5)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 0.0 NS	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3) 4.3 (3)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 19.7 (3) 0.0 (3) 1.0 (3) 0.0 (3)
620 621 624 634 635 636 637 623 625 626 628 629	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 107.5 (2) 600.3 (3)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 68.5 (2) 57.3 (3)	54.0 (3) 30.3 (2) 28.0 (2) 404.0 (2) 2220.0 (2) 4239.5 (2) 604.0 (2) 198.5 (2) 137.0 (2) 70.0 (2) 9.5 (2) 151.5 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 484.3 (4) 239.6 (5) 59.8 (6) 94.7 (3)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3)	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (5) 22.5 (6) 12.1 (7) 61.0 (4)	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 4.2 (6) 45.3 (4)	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 1.3 (3) 18.5 (4) 0.0 (3) 45.7 (3)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 6.4 (5) 28.7 (3)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4) 7.3 (3)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 3132.5 NS	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 19.7 (3) 0.0 (3) 1.0 (3) 5.0 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 107.5 (2) 600.3 (3) 431.5 (2)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 68.5 (2) 57.3 (3) NS 182.0 (2)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 4239.5 (2) 604.0 (2) 137.0 (2) 70.0 (2) 9.5 (2) 151.5 (2) 81.0 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 239.6 (5) 59.8 (6) 94.7 (3) 46.5 (2)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2)	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 29.8 (5) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3)	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 4.2 (6) 45.3 (4) 33.8 (4)	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 11.3 (3) 18.5 (4) 0.0 (3) 45.7 (3) 67.0 (2)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 6.4 (5) 28.7 (3) 2.7 (3)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 0.0 NS 3132.5 NS 11.0 NS	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 19.7 (3) 0.0 (3) 1.0 (3) 0.0 (3) 1.0 (3) 5.0 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630 633	(m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 5444 2179	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 107.5 (2) 600.3 (3) 431.5 (2) 11091.0 (4)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 57.3 (3) NS 182.0 (2) 170.3 (4)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 4239.5 (2) 604.0 (2) 198.5 (2) 137.0 (2) 9.5 (2) 151.5 (2) 81.0 (2) 662.0 (3)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 484.3 (4) 239.6 (5) 59.8 (6) 94.7 (3) 46.5 (2) 468.3 (8)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2) 2511.3 (7)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2) 1399.8 (12)	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (5) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3) 271.7 (10)	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 58.8 (5) 4.2 (6) 45.3 (4) 33.8 (4) 1529.9 (12)	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 11.8 (4) 11.8 (4) 0.0 (3) 45.7 (3) 67.0 (2) 84.1 (8)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 6.4 (5) 28.7 (3) 2.7 (3) 53.1 (11)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3) 99.1 (8)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 45.1 (7) 18.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3) 39.3 (10)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 0.0 NS 3132.5 NS 11.0 NS 98.6 (11)	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3) 217.0 (25)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 1.0 (3) 0.0 (3) 5.0 (3) 18.3 (3) 12.3 (25)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 301-400 301-400	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 5444 2179 2059	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 269.0 (3) 431.5 (2) 11091.0 (4) 804.7 (3)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 68.5 (2) 68.5 (2) NS 182.0 (2) 170.3 (4) 340.0 (2)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 4239.5 (2) 604.0 (2) 137.0 (2) 70.0 (2) 9.5 (2) 151.5 (2) 81.0 (2) 662.0 (3) 1516.3 (3)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 484.3 (4) 239.6 (5) 59.8 (6) 94.7 (3) 46.5 (2) 468.3 (8)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (7) NS 2511.3 (7) 158.1 (15)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2) 1399.8 (12) 279.1 (11)	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (6) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3) 271.7 (10) 288.8 (10)	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 4.2 (6) 4.5 (6) 4.5 (6) 4.5 (7) 4.7 (7) 4.7 (11) 1529.9 (12) 177.7 (11)	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 1.3 (3) 18.5 (4) 0.0 (3) 45.7 (3) 67.0 (2) 84.1 (8) 64.8 (4)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 64 (5) 28.7 (3) 2.7 (3) 53.1 (11) 139.3 (10)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3) 98.1 (8) 1106.1 (8)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3) 39.3 (10) 57.7 (11)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 3132.5 NS 11.0 NS 98.6 (11) 296.4 (2)	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3) 217.0 (25) 17.4 (25)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 19.7 (3) 0.0 (3) 1.0 (3) 5.0 (3) 18.3 (3) 12.3 (25) 3.1 (25)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 301-400 301-400 301-400	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 107.5 (2) 600.3 (3) 431.5 (2) 11091.0 (4) 804.7 (3) 1336.3 (4)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 57.3 (3) NS 182.0 (2) 170.3 (4) 340.0 (2) 3501.5 (2)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 4239.5 (2) 604.0 (2) 137.0 (2) 70.0 (2) 9.5 (2) 151.5 (2) 81.0 (2) 662.0 (3) 1516.3 (3) 5555.5 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 239.6 (5) 59.8 (6) 94.7 (3) 46.5 (2) 468.3 (8) 247.8 (8) 228.5 (6)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2) NS 2511.3 (7) 158.1 (15)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2) 1399.8 (12) 279.1 (11) 12649.0 (7)	1984 0.4 (13) 2.1 (14) 47.5 (4) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 29.8 (6) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3) 271.7 (10) 288.8 (10) 1200.6 (8)	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 4.2 (6) 45.3 (4) 33.8 (4) 1529.9 (12) 177.7 (11) 1331.4 (8)	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 11.8 (4) 11.3 (3) 18.5 (4) 0.0 (3) 45.7 (3) 67.0 (2) 84.1 (8) 64.8 (4) 2096.2 (6)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 6.4 (5) 28.7 (3) 2.7 (3) 53.1 (11) 139.3 (10) 311.3 (7)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3) 98.1 (8) 1106.1 (8) 447.0 (6)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3) 39.3 (10) 57.7 (11) 36.9 (8)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 0.0 NS 3132.5 NS 11.0 NS 98.6 (11) 296.4 (2) 647.9 (3)	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3) 217.0 (25) 17.4 (25) 69.7 (3)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 19.7 (3) 0.0 (3) 1.0 (3) 0.0 (3) 5.0 (3) 18.3 (3) 12.3 (25) 3.1 (25) 5.5 (25)
620 621 624 634 635 636 637 625 626 628 629 630 633 638 639 622	(m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 301-400 301-400 401-500	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 107.5 (2) 600.3 (3) 431.5 (2) 11091.0 (4) 804.7 (3) 1336.3 (4) 402.0 (2)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 68.5 (2) 57.3 (3) NS 182.0 (2) 170.3 (4) 340.0 (2) 3501.5 (2) 26.7 (3)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 4239.5 (2) 604.0 (2) 198.5 (2) 77.0 (2) 9.5 (2) 151.5 (2) 81.0 (2) 662.0 (3) 1516.3 (3) 555.5 (2) 40.5 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 484.3 (5) 59.8 (6) 94.7 (3) 46.5 (2) 468.3 (8) 247.8 (8) 228.5 (6) 44.5 (2)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2) NS 2511.3 (7) 158.1 (15) 1087.5 (10) 27.7 (3)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2) 1399.8 (12) 279.1 (11) 12649.0 (7) 33.0 (2)	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (5) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3) 271.7 (10) 288.8 (10) 1200.6 (8) 13.0 (4)	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 58.8 (5) 4.2 (6) 45.3 (4) 33.8 (4) 1529.9 (12) 177.7 (11) 1331.4 (8) 9.0 (4)	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 11.8 (4) 11.8 (4) 0.0 (3) 45.7 (3) 67.0 (2) 84.1 (8) 64.8 (4) 2096.2 (6) 13.0 (2)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 6.4 (5) 28.7 (3) 2.7 (3) 53.1 (11) 139.3 (10) 311.3 (7) 2.0 (3)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3) 98.1 (8) 1106.1 (8) 447.0 (6) 3.7 (3)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (6) 21.3 (6) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3) 39.3 (10) 57.7 (11) 36.9 (8) 33.3 (3)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 0.0 NS 3132.5 NS 11.0 NS 98.6 (11) 296.4 (2) 647.9 (3) 3.5 (2)	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3) 217.0 (25) 17.4 (25) 69.7 (3) 13.3 (3)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 1.0 (3) 0.0 (3) 5.0 (3) 12.3 (25) 3.1 (25) 5.5 (25) 11.7 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 301-400 401-500	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 5444 2179 2059 1463 632	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 269.0 (3) 431.5 (2) 11091.0 (4) 804.7 (3) 1336.3 (4) 402.0 (2) 9.5 (2)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 57.3 (3) NS 182.0 (2) 170.3 (4) 340.0 (2) 3501.5 (2) 26.7 (3) 59.3 (3)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 4239.5 (2) 604.0 (2) 198.5 (2) 137.0 (2) 70.0 (2) 9.5 (2) 151.5 (2) 81.0 (2) 662.0 (3) 1516.3 (3) 555.5 (2) 40.5 (2) 89.5 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 484.3 (4) 239.6 (5) 59.8 (6) 94.7 (3) 46.5 (2) 468.3 (8) 228.5 (6) 44.5 (2) 14.0 (6)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2) NS 2511.3 (15) 1087.5 (10) 27.7 (3) 35.0 (7)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2) 1399.8 (12) 279.1 (11) 12649.0 (7) 33.0 (2) 38.0 (6)	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (5) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3) 271.7 (10) 288.8 (10) 1200.6 (8) 13.0 (4) 320.4 (8)	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 4.2 (6) 45.3 (4) 33.8 (4) 152.9 (12) 177.7 (11) 1331.4 (8) 9.0 (4) 8.6 (7)	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 11.8 (4) 1.3 (3) 18.5 (4) 0.0 (3) 45.7 (3) 67.0 (2) 84.1 (8) 64.8 (4) 2096.2 (6) 13.0 (2) 68 (5)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 28.7 (3) 2.7 (3) 53.1 (11) 139.3 (10) 311.3 (7) 2.0 (3) 4.5 (6)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3) 98.1 (8) 1106.1 (8) 447.0 (6) 3.7 (3) 2.0 (5)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3) 39.3 (10) 57.7 (11) 36.9 (8) 33.3 (3) 53.7 (6)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 0.0 NS 3132.5 NS 11.0 NS 98.6 (11) 296.4 (2) 647.9 (3) 3.5 (2) 31.8 NS	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3) 217.0 (25) 17.4 (25) 69.7 (3) 13.3 (3) 1.0 (3)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 19.7 (3) 0.0 (3) 5.0 (3) 5.0 (3) 12.3 (25) 5.5 (25) 11.7 (3) 3.0 (3)
620 621 624 634 635 636 637 625 626 628 629 630 633 638 639 622	(m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 301-400 301-400 401-500	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 107.5 (2) 600.3 (3) 431.5 (2) 11091.0 (4) 804.7 (3) 1336.3 (4) 402.0 (2) 9.5 (2)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 68.5 (2) 57.3 (3) NS 182.0 (2) 170.3 (4) 340.0 (2) 3501.5 (2) 26.7 (3)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 4239.5 (2) 604.0 (2) 137.0 (2) 70.0 (2) 9.5 (2) 151.5 (2) 81.0 (2) 662.0 (3) 555.5 (2) 40.5 (2) 99.3 (3)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 239.6 (5) 59.8 (6) 94.7 (3) 46.5 (2) 468.3 (8) 227.8 (8) 228.5 (6) 44.5 (2) 14.0 (6) 38.2 (5)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2) NS 2511.3 (7) 158.1 (15) 1087.5 (10) 27.7 (3) 35.5 (7) 17.5 (2)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2) 1399.8 (12) 279.1 (11) 12649.0 (7) 33.0 (2)	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (5) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3) 271.7 (10) 288.8 (10) 1200.6 (8) 13.0 (4) 26.4 (8) 781.0 (5)	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 4.2 (6) 43.3 (4) 33.8 (4) 1529.9 (12) 177.7 (11) 1331.4 (8) 9.0 (4) 8.6 (7) 270.7 (7)	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 1.3 (3) 18.5 (4) 0.0 (3) 45.7 (3) 67.0 (2) 84.1 (8) 64.8 (4) 2096.2 (6) 13.0 (2) 6.8 (6) 6.6 (6) 26.5 (4)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 6.4 (5) 28.7 (3) 2.7 (3) 53.1 (11) 139.3 (10) 311.3 (7) 2.0 (3) 4.5 (6) 17.0 (6)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3) 98.1 (8) 146.1 (8) 447.0 (6) 3.7 (3) 2.0 (5) 37.7 (6)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (6) 21.3 (6) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3) 39.3 (10) 57.7 (11) 36.9 (8) 33.3 (3)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 0.0 NS 3132.5 NS 11.0 NS 98.6 (11) 296.4 (2) 647.9 (3) 3.5 (2)	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3) 217.0 (25) 17.4 (25) 69.7 (3) 13.3 (3) 1.0 (3) 24.8 (6)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 19.7 (3) 0.0 (3) 1.0 (3) 5.0 (3) 18.3 (3) 12.3 (25) 5.5 (25) 11.7 (3) 3.0 (3) 63.0 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 622 627 631	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 401-500 401-500	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 269.0 (3) 431.5 (2) 11091.0 (4) 804.7 (3) 1336.3 (4) 402.0 (2) 9.5 (2)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 68.5 (2) 57.3 (3) NS 182.0 (2) 170.3 (4) 340.0 (2) 3501.5 (2) 26.7 (3) 59.3 (3) 57.0 (3)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 2220.0 (2) 4239.5 (2) 604.0 (2) 137.0 (2) 9.5 (2) 151.5 (2) 81.0 (2) 662.0 (3) 1516.3 (3) 555.5 (2) 40.5 (2) 89.5 (2) 99.3 (3) 1908.0 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 484.3 (4) 239.6 (5) 59.8 (6) 94.7 (3) 46.5 (2) 468.3 (8) 228.5 (6) 44.5 (2) 14.0 (6)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2) NS 2511.3 (15) 1087.5 (10) 27.7 (3) 35.0 (7)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2) 1399.8 (12) 279.1 (11) 12649.0 (7) 33.0 (2) 38.0 (6) 81.0 (5) NS	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (5) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3) 271.7 (10) 288.8 (10) 1200.6 (8) 13.0 (4) 320.4 (8)	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 4.2 (6) 45.3 (4) 33.8 (4) 152.9 (12) 177.7 (11) 1331.4 (8) 9.0 (4) 8.6 (7)	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 11.8 (4) 1.3 (3) 18.5 (4) 0.0 (3) 45.7 (3) 67.0 (2) 84.1 (8) 64.8 (4) 2096.2 (6) 13.0 (2) 68 (5)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 28.7 (3) 2.7 (3) 53.1 (11) 139.3 (10) 311.3 (7) 2.0 (3) 4.5 (6)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3) 98.1 (8) 1106.1 (8) 447.0 (6) 3.7 (3) 2.0 (5) 37.7 (6) 804.0 (2)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3) 39.3 (10) 57.7 (11) 36.9 (8) 33.3 (3) 53.7 (6) 45.0 (7)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 3132.5 NS 11.0 NS 98.6 (11) 296.4 (2) 647.9 (3) 3.5 (2) 31.8 NS 13.3 (2)	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3) 217.0 (25) 17.4 (25) 69.7 (3) 13.3 (3) 1.0 (3)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 19.7 (3) 0.0 (3) 5.0 (3) 5.0 (3) 12.3 (25) 5.5 (25) 11.7 (3) 3.0 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 622 627 631 640	(m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 401-500 401-500	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 107.5 (2) 600.3 (3) 431.5 (2) 11091.0 (4) 804.7 (3) 1336.3 (4) 402.0 (2) 9.5 (2) 2499.5 (2)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 68.5 (2) 57.3 (3) NS 182.0 (2) 170.3 (4) 340.0 (2) 3501.5 (2) 26.7 (3) 59.3 (3) NS	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 2220.0 (2) 4239.5 (2) 604.0 (2) 137.0 (2) 9.5 (2) 151.5 (2) 81.0 (2) 662.0 (3) 1516.3 (3) 555.5 (2) 40.5 (2) 89.5 (2) 99.3 (3) 1908.0 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 239.6 (5) 59.8 (6) 94.7 (3) 46.5 (2) 468.3 (8) 247.8 (8) 228.5 (6) 44.5 (2) 14.0 (6) 38.2 (5) 613.0 (2)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2) NS 2511.3 (7) 158.1 (15) 1087.5 (10) 27.7 (3) 35.0 (7) 17.5 (2) 782.0 (2)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2) 1399.8 (12) 279.1 (11) 12649.0 (7) 33.0 (2) 38.0 (6) 81.0 (5)	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (5) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3) 271.7 (10) 288.8 (10) 1200.6 (8) 13.0 (4) 26.4 (8) 781.0 (5) 475.0 (2)	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 4.2 (6) 45.3 (4) 33.8 (4) 1529.9 (12) 177.7 (11) 1331.4 (8) 9.0 (4) 8.6 (7) 270.7 (7) 817.0 (3)	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 11.8 (4) 11.8 (4) 0.0 (3) 45.7 (3) 67.0 (2) 84.1 (8) 64.8 (4) 2096.2 (6) 13.0 (2) 6.8 (5) 26.5 (4) 457.5 (2)	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 6.4 (5) 28.7 (3) 2.7 (3) 53.1 (11) 139.3 (10) 311.3 (7) 2.0 (3) 4.5 (6) 491.0 (2)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3) 98.1 (8) 146.1 (8) 447.0 (6) 3.7 (3) 2.0 (5) 37.7 (6)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3) 39.3 (10) 57.7 (11) 36.9 (8) 33.3 (3) 53.7 (6) 45.0 (7) 112.5 (2)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 0.0 NS 0.0 NS 3132.5 NS 11.0 NS 98.6 (11) 296.4 (2) 647.9 (3) 3.5 (2) 31.8 NS 13.3 (2) 229.5 NS	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3) 217.0 (25) 17.4 (25) 69.7 (3) 13.3 (3) 1.0 (3) 24.8 (6) 109.0 (3)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 1.0 (3) 0.0 (3) 1.0 (3) 5.0 (3) 12.3 (25) 3.1 (25) 11.7 (3) 3.0 (3) 63.0 (3) 63.0 (3) 21.3 (3)
620 621 624 634 635 636 637 623 625 626 628 630 633 638 639 622 627 631 645	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 401-500 401-500 401-500	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 269.0 (3) 431.5 (2) 11091.0 (4) 804.7 (3) 1336.3 (4) 402.0 (2) 9.5 (2) 19.5 (2) 2499.5 (2) 2622.5 (2)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 57.3 (3) NS 182.0 (2) 170.3 (4) 340.0 (2) 3501.5 (2) 26.7 (3) 59.3 (3) NS	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 2220.0 (2) 198.5 (2) 137.0 (2) 9.5 (2) 151.5 (2) 81.0 (2) 662.0 (3) 1516.3 (3) 555.5 (2) 40.5 (2) 99.5 (2) 199.5 (2) 2019.0 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 484.3 (4) 239.6 (5) 94.7 (3) 46.5 (2) 468.3 (8) 228.5 (6) 44.5 (2) 44.0 (6) 38.2 (5) 613.0 (2) 848.5 (2)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2) NS 2511.3 (15) 1087.5 (10) 27.7 (3) 35.0 (7) 17.5 (2) 782.0 (2)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2) 1399.8 (12) 279.1 (11) 12649.0 (7) 33.0 (2) 38.0 (6) 81.0 (5) NS 2620.5 (2)	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (5) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3) 271.7 (10) 288.8 (10) 1200.6 (8) 13.0 (4) 26.4 (8) 781.0 (5) 475.0 (2) 239.0 (2)	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 4.2 (6) 45.3 (4) 33.8 (4) 1529.9 (12) 177.7 (11) 1331.4 (8) 9.0 (4) 8.6 (7) 270.7 (7) 817.0 (3) 2159.7 (3)	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 11.8 (4) 1.3 (3) 18.5 (4) 0.0 (3) 45.7 (3) 67.0 (2) 84.1 (8) 64.8 (4) 2096.2 (6) 13.0 (2) 6.8 (5) 26.5 (4) 457.5 (2) NS	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 6.4 (5) 28.7 (3) 2.7 (3) 53.1 (11) 139.3 (10) 311.3 (7) 2.0 (3) 4.5 (6) 17.0 (6) 491.0 (2) 625.5 (2)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3) 98.1 (8) 1106.1 (8) 447.0 (6) 3.7 (3) 2.0 (5) 37.7 (6) 804.0 (2) 1031.0 (2)	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 45.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3) 39.3 (10) 57.7 (11) 36.9 (8) 33.3 (3) 53.7 (6) 45.0 (7) 112.5 (2) 3771.0 (2)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 0.0 NS 3132.5 NS 98.6 (11) 296.4 (2) 647.9 (3) 3.5 (2) 31.8 NS 13.3 (2) 229.5 NS 413.0 (2)	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3) 217.0 (25) 17.4 (25) 69.7 (3) 13.3 (3) 1.0 (3) 24.8 (6) 109.0 (3)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 1.0 (3) 0.0 (3) 5.0 (3) 12.3 (25) 3.1 (25) 5.5 (25) 11.7 (3) 3.0 (3) 63.0 (3) 63.0 (3) 40.7 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 627 631 640 645	(m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 401-500 401-500 401-500 401-500 401-500 501-750	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204 584 333 931	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 107.5 (2) 600.3 (3) 431.5 (2) 11091.0 (4) 804.7 (3) 1336.3 (4) 402.0 (2) 9.5 (2) 19.5 (2) 2499.5 (2) 2692.5 (2) 918.0 (2) 3017.0 (2) 1.5 (2)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 57.3 (3) NS 182.0 (2) 170.3 (4) 340.0 (2) 3501.5 (2) 26.7 (3) 59.3 (3) 57.0 (3) NS NS 220.0 (2) 27.0 (2) NS	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 198.5 (2) 137.0 (2) 77.0 (2) 9.5 (2) 151.5 (2) 662.0 (3) 1516.3 (3) 555.5 (2) 96.3 (3) 1908.0 (2) 2019.0 (2) 512.5 (2) 139.0 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 484.3 (4) 239.6 (5) 59.8 (6) 94.7 (3) 46.5 (2) 468.3 (8) 228.5 (6) 44.5 (2) 14.0 (6) 38.2 (5) 613.0 (2) 848.5 (2) 287.0 (2) 180.0 (2) 2.0 (3)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2) NS 2511.3 (7) 158.1 (15) 1087.5 (10) 27.7 (3) 35.0 (7) 17.5 (2) 1184.7 (3) 266.8 (4) 1510.5 (6)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2) 1399.8 (12) 279.1 (11) 12649.0 (7) 33.0 (2) 38.0 (6) 81.0 (5) NS 2620.5 (2) 71.7 (3) 1265.0 (2) NS	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (5) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3) 271.7 (10) 288.8 (10) 1200.6 (8) 13.0 (4) 264.8 (8) 781.0 (5) 475.0 (2) 239.0 (2) 239.0 (2)	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 4.2 (6) 45.3 (4) 33.8 (4) 1529.9 (12) 177.7 (11) 1331.4 (8) 9.0 (4) 8.6 (7) 270.7 (7) 817.0 (3) 2159.7 (3) 168.8 (4) 353.7 (3) 19.0 (5)	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 11.8 (4) 1.3 (3) 18.5 (4) 0.0 (3) 45.7 (3) 67.0 (2) 84.1 (8) 64.8 (4) 2096.2 (6) 13.0 (2) 6.8 (5) 26.5 (4) 457.5 (2) NS NS	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 6.4 (5) 28.7 (3) 53.1 (11) 139.3 (10) 311.3 (7) 2.0 (3) 4.5 (6) 17.0 (6) 491.0 (2) 625.5 (2) 70.0 (3) 390.5 (2) 2.2 (5)	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3) 98.1 (8) 1106.1 (8) 447.0 (6) 3.7 (3) 2.0 (5) 37.7 (6) 804.0 (2) 1031.0 (2) NS NS NS	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (6) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3) 39.3 (10) 57.7 (11) 36.9 (8) 33.3 (3) 53.7 (6) 45.0 (7) 112.5 (2) 3771.0 (2) NS NS	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 0.0 NS 3132.5 NS 11.0 NS 98.6 (11) 296.4 (2) 647.9 (3) 3.5 (2) 31.8 NS 13.3 (2) 229.5 NS 413.0 (2) 39.5 NS 23.0 (2) 4.3 NS	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3) 217.0 (25) 17.4 (25) 69.7 (3) 13.3 (3) 1.0 (3) 24.8 (6) 109.0 (3) 142.0 (3) 62.5 (2) 345.0 (3) 0.0 (2)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 0.0 (3) 19.7 (3) 0.0 (3) 1.0 (3) 5.0 (3) 18.3 (3) 12.3 (25) 5.5 (25) 11.7 (3) 3.0 (3) 3.0 (3) 40.7 (3) 12.0 (2)
620 621 624 634 635 636 637 623 625 626 629 630 633 638 639 622 627 631 640 645 641	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 401-500 401-500 401-500 501-750 501-750 751-1000	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204 584 333 409	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 107.5 (2) 600.3 (3) 431.5 (2) 11091.0 (4) 804.7 (3) 1336.3 (4) 402.0 (2) 9.5 (2) 919.5 (2) 2499.5 (2) 918.0 (2) 3017.0 (2) 262.5 (2) 918.0 (2) 26.0 (2)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 81.0 (2) 1805.0 (3) NS 164.5 (2) 68.5 (2) 57.3 (3) NS 182.0 (2) 170.3 (4) 340.0 (2) 26.7 (3) NS 159.3 (3) 57.0 (3) NS 0220.0 (2) 27.0 (2) NS 0.5 (2)	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 4239.5 (2) 604.0 (2) 137.0 (2) 70.0 (2) 9.5 (2) 151.5 (2) 81.0 (2) 662.0 (3) 1516.3 (3) 555.5 (2) 40.5 (2) 96.3 (3) 1908.0 (2) 2019.0 (2) 512.5 (2) 139.0 (2) 55.0 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 484.3 (4) 239.6 (5) 59.8 (6) 94.7 (3) 46.5 (2) 488.3 (8) 228.5 (6) 44.5 (2) 14.0 (6) 38.2 (5) 613.0 (2) 287.0 (2) 180.0 (2) 2.0 (3) 11.0 (2)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (6) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2) NS 2511.3 (7) 158.1 (15) 1087.5 (10) 27.7 (3) 35.0 (7) 17.5 (2) 782.0 (2) 1184.7 (3) 266.8 (4) 1510.5 (2) 6.5 (6) 0.5 (2)	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2) 1399.8 (12) 279.1 (11) 12649.0 (7) 33.0 (2) 38.0 (6) 81.0 (5) NS 0 (2) 71.7 (3) 1265.0 (2) NS NS	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (5) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3) 271.7 (10) 288.8 (10) 1200.6 (8) 13.0 (4) 26.4 (8) 781.0 (5) 475.0 (2) 239.0 (2) 239.0 (2) 7.7 (6) NS	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 4.2 (6) 45.3 (4) 33.8 (4) 1529.9 (12) 177.7 (11) 1331.4 (8) 9.0 (4) 8.6 (7) 270.7 (7) 817.0 (3) 2159.7 (3) 2159.7 (3) 168.8 (4) 353.7 (3) 19.0 (5) 234.7 (3)	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 1.3 (3) 18.5 (4) 0.0 (3) 45.7 (3) 67.0 (2) 84.1 (8) 64.8 (4) 2096.2 (6) 13.0 (2) 6.8 (5) 26.5 (4) 457.5 (2) NS NS NS	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 6.4 (5) 28.7 (3) 2.7 (3) 53.1 (11) 139.3 (10) 311.3 (7) 2.0 (3) 4.5 (6) 17.0 (6) 491.0 (2) 625.5 (2) 70.0 (3) 390.5 (2) 2.2 (5) NS	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3) 98.1 (8) 1106.1 (8) 447.0 (6) 3.7 (3) 2.0 (5) 37.7 (6) 804.0 (2) 1031.0 (2) NS NS NS NS	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3) 39.3 (10) 57.7 (11) 36.9 (8) 33.3 (3) 53.7 (6) 45.0 (7) 112.5 (2) 3771.0 (2) NS NS NS	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 3132.5 NS 11.0 NS 98.6 (11) 296.4 (2) 647.9 (3) 3.5 (2) 229.5 NS 11.3 (2) 229.5 NS 23.0 (2) 4.3 NS 13.5 (2)	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3) 217.0 (25) 17.4 (25) 69.7 (3) 13.3 (3) 143.3 (3) 24.8 (6) 109.0 (3) 142.0 (3) 62.5 (2) 345.0 (3) 0.0 (2) 37.0 (3)	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 19.7 (3) 0.0 (3) 1.0 (3) 5.0 (3) 18.3 (3) 12.3 (25) 5.5 (25) 11.7 (3) 63.0 (3) 21.3 (3) 40.7 (3) 12.0 (2) 116.3 (3) 2.5 (2)
620 621 624 634 635 636 637 623 625 626 629 630 633 638 639 622 627 631 640 645 641	(m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 401-500 401-500 401-500 401-500 501-750 751-1000	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204 584 333 931 409 Upper	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 107.5 (2) 600.3 (3) 431.5 (2) 11091.0 (4) 804.7 (3) 1336.3 (4) 402.0 (2) 9.5 (2) 2499.5 (2) 2499.5 (2) 2622.5 (2) 918.0 (2) 3017.0 (2) 1.5 (2) 260.0 (2)	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 57.3 (3) NS 182.0 (2) 170.3 (4) 340.0 (2) 3501.5 (2) 26.7 (3) 59.3 (3) 57.0 (3) NS NS NS 220.0 (2) 27.0 (2) NS 0.5 (2) 2552.2	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 4239.5 (2) 604.0 (2) 137.0 (2) 70.0 (2) 9.5 (2) 151.5 (2) 81.0 (2) 662.0 (3) 1516.3 (3) 1516.3 (3) 1598.5 (2) 40.5 (2) 96.3 (3) 1908.0 (2) 2019.0 (2) 512.5 (2) 139.0 (2) 55.0 (2) 55.0 (2) 3560.2	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 239.6 (5) 59.8 (6) 94.7 (3) 46.5 (2) 468.3 (8) 247.8 (8) 247.8 (6) 44.5 (2) 14.0 (6) 38.2 (5) 613.0 (2) 848.5 (2) 180.0 (2) 287.0 (2) 11.0 (2)	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2) 251.13 (7) 158.1 (15) 1087.5 (10) 27.7 (3) 35.0 (7) 17.5 (2) 782.0 (2) 1184.7 (3) 266.8 (4) 1510.5 (2) 6.5 (6) 0.5 (2) 715.7	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2) 1399.8 (12) 279.1 (11) 12649.0 (7) 33.0 (2) 38.0 (6) 81.0 (5) NS 2620.5 (2) NS 1265.0 (2) NS 4898.1	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (5) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3) 271.7 (10) 288.8 (10) 1200.6 (8) 13.0 (4) 26.4 (8) 781.0 (5) 475.0 (2) 239.0 (2) 129.7 (3) 572.0 (2) 7.7 (6) NS	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 58.8 (5) 4.2 (6) 45.3 (4) 33.8 (4) 1529.9 (12) 177.7 (11) 1331.4 (8) 9.0 (4) 8.6 (7) 270.7 (7) 817.0 (3) 2159.7 (3) 168.8 (4) 353.7 (3) 19.0 (5) 234.7 (3)	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 11.8 (4) 11.8 (4) 10.0 (3) 45.7 (3) 67.0 (2) 84.1 (8) 64.8 (4) 2096.2 (6) 13.0 (2) 6.8 (5) 26.5 (4) 457.5 (2) NS NS NS NS NS NS NS	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 6.4 (5) 28.7 (3) 2.7 (3) 53.1 (11) 139.3 (10) 311.3 (7) 2.0 (3) 4.5 (6) 491.0 (2) 625.5 (2) 70.0 (3) 390.5 (2) 2.2 (5) NS 85.2	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3) 98.1 (8) 1106.1 (8) 447.0 (6) 3.7 (3) 2.0 (5) 37.7 (6) 804.0 (2) 1031.0 (2) NS	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3) 39.3 (10) 57.7 (11) 36.9 (8) 33.3 (3) 53.7 (6) 45.0 (7) 112.5 (2) 3771.0 (2) NS NS NS NS	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 0.0 NS 0.0 NS 3132.5 NS 11.0 NS 98.6 (11) 296.4 (2) 31.8 NS 13.3 (2) 229.5 NS 413.0 (2) 39.5 NS 23.0 (2) 4.3 NS 23.0 (2) 969.4	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3) 217.0 (25) 17.4 (25) 69.7 (3) 13.3 (3) 1.0 (3) 24.8 (6) 109.0 (3) 142.0 (3) 62.5 (2) 345.0 (3) 0.0 (2) 37.0 (3) 58.0	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 19.7 (3) 0.0 (3) 1.0 (3) 5.0 (3) 18.3 (3) 12.3 (25) 3.1 (25) 5.5 (25) 11.7 (3) 3.0 (3) 63.0 (3) 21.3 (3) 40.7 (3) 12.0 (2) 116.3 (3) 2.5 (2) 116.3 (3) 2.5 (2) 117.5 (2)
620 621 624 634 635 636 637 623 625 626 628 639 633 638 639 622 627 631 640 645 641 642 642	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 401-500 401-500 401-500 501-750 501-750 751-1000	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204 584 333 931 409 Upper Mean	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 107.5 (2) 600.3 (3) 431.5 (2) 11091.0 (4) 804.7 (3) 1336.3 (4) 402.0 (2) 9.5 (2) 2499.5 (2) 2499.5 (2) 2692.5 (2) 918.0 (2) 317.5 (2) 26.0 (2) 3765.5	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 68.5 (2) 57.3 (3) NS 182.0 (2) 170.3 (4) 340.0 (2) 26.7 (3) 59.3 (3) 57.0 (3) NS NS 220.0 (2) 27.0 (2) NS 0.5 (2) 2552.2 410.6	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 198.5 (2) 137.0 (2) 9.5 (2) 151.5 (2) 151.5 (2) 151.6 (3) 1516.3 (3) 1516.3 (3) 1598.0 (2) 2019.0 (2) 2019.0 (2) 513.0 (2) 55.5 (2) 55.5 (2) 55.7 (2) 3560.2 (2) 557.0 (2)	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 239.6 (5) 59.8 (6) 94.7 (3) 46.5 (2) 468.3 (8) 247.8 (8) 228.5 (6) 44.5 (2) 14.0 (6) 38.2 (5) 613.0 (2) 848.5 (2) 287.0 (2) 180.0 (2) 110.0 (2) 1037.2 399.8	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2) NS 2511.3 (7) 158.1 (15) 1087.5 (10) 27.7 (3) 35.0 (7) 17.5 (2) 782.0 (2) 1184.7 (3) 266.8 (4) 1510.5 (2) 6.5 (6) 0.5 (2) 715.7 342.4	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2) 1399.8 (12) 279.1 (11) 12649.0 (7) 33.0 (2) 38.0 (6) 81.0 (5) NS 2620.5 (2) 71.7 (3) 1265.0 (2) NS NS 4898.1	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (5) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3) 271.7 (10) 288.8 (10) 1200.6 (8) 781.0 (5) 475.0 (2) 239.0 (2) 129.7 (3) 572.0 (2) 7.7 (6) NS 292.3 185.1	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 4.2 (6) 45.3 (4) 33.8 (4) 1529.9 (12) 177.7 (11) 1331.4 (8) 9.0 (4) 8.6 (7) 270.7 (7) 817.0 (3) 2159.7 (3) 168.8 (4) 353.7 (3) 19.0 (5) 234.7 (3) 433.4 267.5	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 1.3 (3) 18.5 (4) 0.0 (3) 45.7 (3) 67.0 (2) 84.1 (8) 64.8 (4) 2096.2 (6) 13.0 (2) 6.8 (5) 26.5 (4) 457.5 (2) NS NS NS NS NS NS NS NS NS	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 6.4 (5) 28.7 (3) 2.7 (3) 53.1 (11) 139.3 (10) 311.3 (7) 2.0 (3) 4.5 (6) 491.0 (2) 625.5 (2) 70.0 (3) 390.5 (2) 2.2 (5) NS 85.2 54.8	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3) 98.1 (8) 1106.1 (8) 447.0 (6) 3.7 (3) 2.0 (5) 37.7 (6) 804.0 (2) 1031.0 (2) NS	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3) 39.3 (10) 57.7 (11) 36.9 (8) 33.3 (3) 53.7 (6) 45.0 (7) 112.5 (2) 3771.0 (2) NS NS NS NS NS 459.7 73.6	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 0.0 NS 3132.5 NS 11.0 NS 98.6 (11) 296.4 (2) 647.9 (3) 3.5 (2) 31.8 NS 13.3 (2) 229.5 NS 413.0 (2) 4.3 NS 13.5 (2) 969.4 128.8	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3) 217.0 (25) 17.4 (25) 69.7 (3) 13.3 (3) 1.0 (3) 24.8 (6) 109.0 (3) 142.0 (3) 62.5 (2) 345.0 (3) 58.0 58.5	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 1.0 (3) 0.0 (3) 1.0 (3) 5.0 (3) 12.3 (25) 3.1 (25) 3.1 (25) 3.1 (25) 3.1 (25) 11.7 (3) 3.0 (3) 63.0 (3) 62.3 (3) 40.7 (3) 12.0 (2) 116.3 (3) 2.5 (2) 1.7 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 641 640 647 Stratified	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 301-500 401-500 401-500 401-500 501-750 501-750 501-750 751-1000	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204 584 333 409 Upper Mean Lower	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 107.5 (2) 600.3 (3) 431.5 (2) 11091.0 (4) 804.7 (3) 1336.3 (4) 402.0 (2) 9.5 (2) 918.0 (2) 3017.0 (2) 2692.5 (2) 918.0 (2) 3765.5 1637.1 -491.3	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 81.0 (2) 1805.0 (3) NS 164.5 (2) 68.5 (2) 57.3 (3) NS 182.0 (2) 170.3 (4) 340.0 (2) 3501.5 (2) 26.7 (3) NS 159.3 (3) 57.0 (3) NS 220.0 (2) 27.0 (2) 27.0 (2) 2552.2 410.6 -1731.1	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 4239.5 (2) 604.0 (2) 137.0 (2) 70.0 (2) 95.5 (2) 41.5 (2) 81.0 (2) 662.0 (3) 1516.3 (3) 555.5 (2) 40.5 (2) 96.3 (3) 1908.0 (2) 2019.0 (2) 512.5 (2) 139.0 (2) 5.0 (2) 5.0 (2) 5.0 (2) 3560.2 547.5 -2465.1	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 484.3 (4) 239.6 (5) 59.8 (6) 94.7 (3) 46.5 (2) 468.3 (8) 228.5 (6) 44.5 (2) 14.0 (6) 38.2 (5) 613.0 (2) 287.0 (2) 180.0 (2) 2.0 (3) 2.0 (3) 11.0 (2) 1037.2 399.8 -237.5	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (6) 80.0 (7) 11.2 (6) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2) NS 2511.3 (7) 158.1 (15) 1087.5 (10) 27.7 (3) 35.0 (7) 17.5 (2) 782.0 (2) 1184.7 (3) 1266.8 (4) 1510.5 (2) 6.5 (2) 715.7 342.4 -30.9	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2) 1399.8 (12) 279.1 (11) 12649.0 (7) 33.0 (2) 38.0 (6) 81.0 (5) NS 2620.5 (2) 71.7 (3) 1265.0 (2) NS NS 4898.1 2063.4 -771.3	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3) 271.7 (10) 288.8 (10) 120.0 (6) (8) 13.0 (4) 26.4 (8) 781.0 (5) 475.0 (2) 129.7 (3) 572.0 (2) 7.7 (6) NS 292.3 185.1 77.9	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 4.2 (6) 45.3 (4) 33.8 (4) 152.9 (1) 177.7 (11) 1331.4 (8) 9.0 (4) 8.6 (7) 270.7 (7) 817.0 (3) 2159.7 (3) 168.8 (4) 353.7 (3) 19.0 (6) 234.7 (3) 433.4 267.5 101.5	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 1.3 (3) 18.5 (4) 0.0 (3) 45.7 (3) 67.0 (2) 84.1 (8) 64.8 (4) 2096.2 (6) 13.0 (2) 6.8 (5) 26.5 (4) 457.5 (2) NS	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 6.4 (5) 28.7 (3) 2.7 (3) 53.1 (11) 139.3 (10) 311.3 (7) 2.0 (3) 4.5 (6) 17.0 (6) 491.0 (2) 625.5 (2) 70.0 (3) 390.5 (2) 2.2 (5) NS 85.2 54.8 24.3	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3) 99.1 (8) 1106.1 (8) 447.0 (6) 3.7 (3) 2.0 (5) 37.7 (6) 804.0 (2) 1031.0 (2) NS	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3) 39.3 (10) 57.7 (11) 36.9 (8) 33.3 (3) 57.7 (11) 36.9 (8) 33.3 (3) 57.7 (11) 36.9 (8) 37.7 (11) 37.7 (11)	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 3132.5 NS 11.0 NS 98.6 (11) 296.4 (2) 647.9 (3) 3.5 (2) 229.5 NS 13.3 (2) 229.5 NS 23.0 (2) 4.3 NS 13.5 (2) 969.4 128.8 -711.8	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3) 217.0 (25) 17.4 (25) 69.7 (3) 13.3 (3) 14.3 (3) 24.8 (6) 109.0 (3) 142.0 (3) 62.5 (2) 345.0 (3) 0.0 (2) 37.0 (3) 58.0 33.5 9.1	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 1.0 (3) 0.0 (3) 1.0 (3) 5.0 (3) 18.3 (3) 12.3 (25) 5.5 (25) 11.7 (3) 63.0 (3) 21.3 (3) 40.7 (3) 12.0 (2) 116.3 (3) 2.1 (25) 1.2 (25) 1.3 (25) 1.4 (25) 1.5 (25) 1.7 (3) 1.8 (3) 1.9 (3) 1.0
620 621 624 634 635 636 637 623 626 628 629 630 633 639 622 627 631 640 645 641 646 642 647 Stratified	(m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 301-500 401-500 401-500 401-500 501-750 501-750 501-750 501-750 501-750 501-750 501-750 501-750 501-750 501-750 501-750 501-750 501-750 501-750 501-750 501-750 501-750	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204 584 333 931 409 Upper Mean Lower und(millions)	184.0 (5) 36.4 (5) 5998.5 (4) 1218.3 (4) 3467.8 (4) 3511.0 (4) 1896.6 (5) 188.0 (3) 370.0 (3) 269.0 (3) 107.5 (2) 600.3 (3) 431.5 (2) 11091.0 (4) 804.7 (3) 1336.3 (4) 402.0 (2) 9.5 (2) 918.0 (2) 2692.5 (2) 918.0 (2) 3017.0 (2) 26.0 (2) 3765.5 1637.1 -491.3	91.0 (3) 12.7 (3) 825.0 (2) 81.0 (2) 81.0 (2) 647.7 (3) 381.0 (2) 1805.0 (3) NS 164.5 (2) 68.5 (2) 57.3 (3) NS 182.0 (2) 170.3 (4) 340.0 (2) 26.7 (3) 59.3 (3) 57.0 (3) NS NS 220.0 (2) 27.0 (2) NS 0.5 (2) 2552.2 410.6	54.0 (3) 30.3 (3) 28.0 (2) 404.0 (2) 220.0 (2) 4239.5 (2) 604.0 (2) 137.0 (2) 70.0 (2) 9.5 (2) 161.5 (2) 81.0 (2) 662.0 (3) 1516.3 (3) 555.5 (2) 40.5 (2) 96.3 (3) 1908.0 (2) 2019.0 (2) 512.5 (2) 139.0 (2) 57.0 (2) 3560.2 547.5 -2465.1	20.4 (10) 3.6 (11) 66.0 (2) 80.4 (7) 4977.0 (5) 122.8 (6) 1034.2 (6) 17.8 (4) 239.6 (5) 59.8 (6) 94.7 (3) 46.5 (2) 468.3 (8) 247.8 (8) 228.5 (6) 44.5 (2) 14.0 (6) 38.2 (5) 613.0 (2) 848.5 (2) 287.0 (2) 180.0 (2) 110.0 (2) 1037.2 399.8	1.4 (9) 6.6 (14) 14.3 (4) 206.4 (11) 17.0 (5) 66.2 (10) 80.0 (7) 11.2 (5) 35.5 (2) 236.0 (5) 11.3 (6) 61.5 (2) NS 2511.3 (7) 158.1 (15) 1087.5 (10) 27.7 (3) 35.0 (7) 17.5 (2) 782.0 (2) 1184.7 (3) 266.8 (4) 1510.5 (2) 6.5 (6) 0.5 (2) 715.7 342.4	1983 10.4 (10) 2.1 (12) 25.5 (4) 17406.0 (5) 19.2 (6) 164.8 (6) 472.2 (5) 137.2 (6) 436.3 (3) 21.8 (4) 21.0 (6) 3306.0 (3) 236.0 (2) 1399.8 (12) 279.1 (11) 12649.0 (7) 33.0 (2) 38.0 (6) 81.0 (5) NS 2620.5 (2) 71.7 (3) 1265.0 (2) NS NS 4898.1	1984 0.4 (13) 2.1 (14) 47.5 (4) 108.3 (7) 100.3 (8) 54.8 (8) 42.5 (6) 29.8 (5) 40.4 (5) 22.5 (6) 12.1 (7) 61.0 (4) 320.0 (3) 271.7 (10) 288.8 (10) 1200.6 (8) 781.0 (5) 475.0 (2) 239.0 (2) 129.7 (3) 572.0 (2) 7.7 (6) NS 292.3 185.1	1985 4.7 (14) 7.9 (15) 15.0 (4) 59.6 (9) 34.1 (7) 20.8 (8) 114.4 (7) 12.3 (6) 135.6 (5) 58.8 (5) 4.2 (6) 45.3 (4) 33.8 (4) 1529.9 (12) 177.7 (11) 1331.4 (8) 9.0 (4) 8.6 (7) 270.7 (7) 817.0 (3) 2159.7 (3) 168.8 (4) 353.7 (3) 19.0 (5) 234.7 (3) 433.4 267.5	1986 0.0 (9) 3.9 (14) 27.0 (2) 88.0 (5) 30.5 (6) 43.0 (4) 41.8 (4) 1.3 (3) 18.5 (4) 0.0 (3) 45.7 (3) 67.0 (2) 84.1 (8) 64.8 (4) 2096.2 (6) 13.0 (2) 6.8 (5) 26.5 (4) 457.5 (2) NS NS NS NS NS NS NS NS NS	1.4 (14) 1.3 (12) 15.3 (3) 27.5 (11) 16.5 (6) 16.9 (7) 18.5 (6) 3.2 (5) 48.0 (4) 36.6 (5) 6.4 (5) 28.7 (3) 2.7 (3) 53.1 (11) 139.3 (10) 311.3 (7) 2.0 (3) 4.5 (6) 491.0 (2) 625.5 (2) 70.0 (3) 390.5 (2) 2.2 (5) NS 85.2 54.8	3.2 (12) 0.5 (10) 14.0 (3) 22.0 (6) 17.2 (5) 24.8 (6) 37.5 (8) 46.8 (5) 12.8 (4) 1.0 (5) 6.8 (5) 27.5 (2) 2.0 (3) 98.1 (8) 1106.1 (8) 447.0 (6) 3.7 (3) 2.0 (5) 37.7 (6) 804.0 (2) 1031.0 (2) NS	4.5 (15) 0.4 (17) 11.3 (3) 37.1 (7) 45.1 (7) 18.2 (5) 12.0 (5) 21.3 (6) 46.3 (4) 498.6 (5) 1.8 (4) 7.3 (3) 6.7 (3) 39.3 (10) 57.7 (11) 36.9 (8) 33.3 (3) 53.7 (6) 45.0 (7) 112.5 (2) 3771.0 (2) NS NS NS NS NS 459.7 73.6	0.0 (8) 1.3 NS 21.0 (4) 6.9 (2) 2.7 NS 2.0 NS 2.2 (2) 1.2 (5) 2.0 (4) 0.0 NS 0.0 NS 3132.5 NS 11.0 NS 98.6 (11) 296.4 (2) 647.9 (3) 3.5 (2) 31.8 NS 13.3 (2) 229.5 NS 413.0 (2) 4.3 NS 13.5 (2) 969.4 128.8	1.4 (14) 2.8 (5) 0.0 (2) 9.4 (25) 5.5 (4) 0.3 (3) 6.8 (6) 6.5 (6) 4.0 (3) 9.7 (3) 4.3 (3) 9.5 (4) 2.3 (3) 217.0 (25) 17.4 (25) 69.7 (3) 13.3 (3) 1.0 (3) 24.8 (6) 109.0 (3) 142.0 (3) 62.5 (2) 345.0 (3) 58.0 58.5	0.0 (3) 0.0 (3) 2.7 (3) 1.9 (25) 8.3 (3) 6.7 (3) 0.0 (3) 1.0 (3) 0.0 (3) 1.0 (3) 5.0 (3) 12.3 (25) 3.1 (25) 3.1 (25) 3.1 (25) 3.1 (25) 11.7 (3) 3.0 (3) 63.0 (3) 62.3 (3) 40.7 (3) 12.0 (2) 116.3 (3) 2.5 (2) 1.7 (3)

	panel show	w Campele	en trawl conv	ertion base	ed on comparative	e fishing trials (CCGS T	eleost, 15 m	in tow @ 3	0 knots)	Number of s	uccessful set	s in brack	ets, 'NS'	= unsamp	oled strat
					vey Data (Engel 145											
		Area	Area													
	Depth range	(sq.n.mi.)	(sq.n.mi.)	1993	1994											
atum		1978-1992	1993-Onwards													
320	201 - 300	2709	2545	0.0 (3)	0.0 (5)											
621	201 - 300	2859	2537	0.0 (3)	0.0 (3)											
624	201 - 300	668	1105	1.4 (7)	0.0 (3)											
634	201 - 300	1618	1555	1.0 (16)	0.8 (4)											
635	201 - 300	1274	1274	0.7 (3)	0.0 (4)											
636	201 - 300	1455	1455	0.7 (3)	0.0 (3)											
637	201 - 300	1132	1132	0.0 (3)	0.1 (14)							_	_	_		
623	301 - 400	1027	494	0.5 (4)	0.0 (3)	Note: S	urve	v area	was r	estra	tified b	ased or	n revis	sed		
625	301 - 400	850	888	2.3 (3)	2.0 (3)			•								
626	301 - 400	919	1113	0.0 (3)	0.0 (3)	hydrogr	ranhv	z chart	s and i	imnle	mente	d on the	199	3 9111	rvev	
628	301 - 400	1085	1085	0.7 (3)	0.0 (6)											-
629	301 - 400	499	495	0.7 (3)	1.3 (4)	For furt	her i	nforms	tion se	Ri عد	shon (1	1994) N	Jurnh	$\sqrt{10}$	99611	-
630	301 - 400 301 - 400	544 2179	332 2067	0.0 (3)	0.3 (3)	i Oi lult			LICIT 30	וט טי	SHOP ($1 \cup \cup \neg j$, 1	AIGIDI	ıy (1 s		-
633 638	301 - 400	2059	2059	3.8 (18) 1.0 (20)												
639	301 - 400	1463	1463													
622	401 - 500	632	1463 691	2.3 (15)												
627	401 - 500	1184	1255	1.8 (4) 1.0 (3)	1.2 (5) 0.9 (8)											
631	401 - 500	1202	1321	1.0 (3)	2.5 (4)											
640	401 - 500	198	1321 69	22.3 (3)	29.0 (3)											
645	401 - 500	204	216	19.0 (3)	16.7 (3)											
641	501 - 750	584	230	27.7 (3)	15.7 (3)											
646	501 - 750	333	325	21.7 (3)	42.3 (3)											
642	751 -1000	931	418	2.0 (3)	0.7 (3)											
647	751 -1000	409	360	1.3 (3)	10.7 (3)											
,	Stratified An		Upper	2.3	2.7											
	Cadined All	,	Mean	1.9	1.9											
			Lower	1.4	1.0											
	Tota	I Survey Abu	ndance (millions)	4.0	3.9											
		,	,,		urvey Data (Campe	len Equivalents)										
	Depth range	Area	Area	1993	1994											
			(sq.n.mi.)													
tratum	(m)	(sq.n.mi.)														
tratum 620	(m) 201 - 300	2709	2545	0.0 (3)	0.0 (5)											
			· · · · ·	0.0 (3) 0.0 (3)	0.0 (5) 0.0 (3)											
620	201 - 300	2709	2545													
620 621	201 - 300 201 - 300	2709 2859	2545 2537	0.0 (3)	0.0 (3)											
620 621 624	201 - 300 201 - 300 201 - 300	2709 2859 668	2545 2537 1105	0.0 (3) 9.9 (7)	0.0 (3) 0.0 (3)											
620 621 624 634	201 - 300 201 - 300 201 - 300 201 - 300	2709 2859 668 1618	2545 2537 1105 1555	0.0 (3) 9.9 (7) 3.1 (16)	0.0 (3) 0.0 (3) 1.5 (4)											
620 621 624 634 635	201 - 300 201 - 300 201 - 300 201 - 300 201 - 300	2709 2859 668 1618 1274	2545 2537 1105 1555 1274	0.0 (3) 9.9 (7) 3.1 (16) 1.3 (3)	0.0 (3) 0.0 (3) 1.5 (4) 0.0 (4)											
620 621 624 634 635 636	201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 201 - 300	2709 2859 668 1618 1274 1455	2545 2537 1105 1555 1274 1455	0.0 (3) 9.9 (7) 3.1 (16) 1.3 (3) 2.7 (3)	0.0 (3) 0.0 (3) 1.5 (4) 0.0 (4) 0.0 (3)											
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620 621 624 634 635 636 637 623 625 626 628	201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 301 - 400 301 - 400 301 - 400	2709 2859 668 1618 1274 1455 1132 1027 850 919 1085	2545 2537 1105 1555 1274 1455 1132 494 888 1113 1085	0.0 (3) 9.9 (7) 3.1 (16) 1.3 (3) 2.7 (3) 0.0 (3) 1.3 (4) 6.7 (3) 0.0 (3) 2.0 (3)	0.0 (3) 0.0 (3) 1.5 (4) 0.0 (4) 0.0 (3) 1.4 (14) 0.0 (3) 8.7 (3) 0.0 (3) 0.0 (6)											
620 621 624 634 635 636 637 623 625 626 628 629	201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 301 - 400 301 - 400 301 - 400 301 - 400	2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499	2545 2537 1105 1555 1274 1455 1132 494 888 1113 1085 495	0.0 (3) 9.9 (7) 3.1 (16) 1.3 (3) 2.7 (3) 0.0 (3) 1.3 (4) 6.7 (3) 0.0 (3) 2.0 (3) 4.0 (3)	0.0 (3) 0.0 (3) 1.5 (4) 0.0 (4) 0.0 (3) 1.4 (14) 0.0 (3) 8.7 (3) 0.0 (3) 0.0 (6) 2.5 (4)											
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620 621 624 634 635 636 637 623 625 626 628 629 630 633 638	201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 301 - 400 301 - 400	2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059	2545 2537 1105 1555 1274 1455 1132 494 888 81113 1085 496 332 2067 2059	0.0 (3) 9.9 (7) 3.1 (16) 1.3 (3) 2.7 (3) 0.0 (3) 1.3 (4) 6.7 (3) 0.0 (3) 2.0 (3) 4.0 (3) 0.0 (3) 14.8 (18) 2.5 (20)	0.0 (3) 0.0 (3) 1.5 (4) 0.0 (4) 0.0 (3) 1.4 (14) 0.0 (3) 8.7 (3) 0.0 (6) 2.5 (4) 0.7 (3) 3.4 (5) 4.2 (21)											
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620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 622	201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 301 - 400 301 - 400 401 - 500	2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632	2545 2537 2537 1105 1555 1274 1455 1132 494 888 1113 1085 495 332 2067 2059 463 691	0.0 (3) 9.9 (7) 3.1 (16) 1.3 (3) 2.7 (3) 0.0 (3) 1.3 (4) 6.7 (3) 0.0 (3) 2.0 (3) 4.0 (3) 0.0 (3) 14.8 (18) 2.5 (20) 8.0 (15) 4.3 (4)	0.0 (3) 0.0 (3) 1.5 (4) 0.0 (4) 0.0 (3) 1.4 (14) 0.0 (3) 8.7 (3) 0.0 (3) 0.0 (6) 2.5 (4) 0.7 (3) 3.4 (5) 4.2 (21) 12.6 (8) 4.4 (5)											
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 622 627	201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 301 - 400 301 - 400 401 - 500	2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184	2545 2537 2537 1105 1555 1274 1455 1132 494 888 1113 1085 495 332 2067 2059 1463 691 1255	0.0 (3) 9.9 (7) 3.1 (16) 1.3 (3) 2.7 (3) 0.0 (3) 1.3 (4) 6.7 (3) 0.0 (3) 0.0 (3) 4.0 (3) 0.0 (3) 14.8 (18) 2.5 (20) 8.0 (15) 4.3 (4) 4.3 (3)	0.0 (3) 0.0 (3) 1.5 (4) 0.0 (4) 0.0 (3) 1.4 (14) 0.0 (3) 8.7 (3) 0.0 (6) 2.5 (4) 0.7 (3) 3.4 (5) 4.2 (21) 12.6 (8) 4.4 (5) 2.8 (8)											
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 622 627 631	201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 301 - 400 301 - 400 401 - 500 401 - 500	2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202	2545 2537 1105 1555 1274 1455 1132 494 888 1113 1085 495 332 2067 2059 1463 691 1255 1321	0.0 (3) 9.9 (7) 3.1 (16) 1.3 (3) 2.7 (3) 0.0 (3) 1.3 (4) 6.7 (3) 0.0 (3) 4.0 (3) 0.0 (3) 14.8 (18) 2.5 (20) 8.0 (15) 4.3 (4) 5.3 (3) 5.7 (3)	0.0 (3) 0.0 (3) 1.5 (4) 0.0 (4) 0.0 (3) 1.4 (14) 0.0 (3) 8.7 (3) 0.0 (3) 0.0 (6) 2.5 (4) 0.7 (3) 3.4 (5) 4.2 (21) 12.6 (8) 4.4 (5) 2.8 (8) 9.8 (4)											
620 621 624 634 635 636 637 623 625 626 628 630 633 638 639 622 627 631 640	201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 301 - 400 301 - 400 301 - 400 301 - 400 301 - 400 301 - 400 401 - 500 401 - 500 401 - 500	2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202	2545 2537 1105 1555 1274 1455 1132 494 888 1113 1085 495 332 2067 2059 1463 691 1255 1321 69	0.0 (3) 9.9 (7) 3.1 (16) 1.3 (3) 2.7 (3) 0.0 (3) 1.3 (4) 6.7 (3) 0.0 (3) 2.0 (3) 4.0 (3) 0.0 (3) 14.8 (18) 2.5 (20) 8.0 (15) 4.3 (4) 5.3 (3) 74.0 (3)	0.0 (3) 0.0 (3) 1.5 (4) 0.0 (4) 0.0 (3) 1.4 (14) 0.0 (3) 8.7 (3) 0.0 (3) 0.0 (6) 2.5 (4) 0.7 (3) 3.4 (5) 4.2 (21) 12.6 (8) 4.4 (5) 2.8 (8) 9.8 (4) 100.3 (3)											
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620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 622 627 631 640 645	201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 301 - 400 301 - 400 301 - 400 301 - 400 301 - 400 301 - 400 401 - 500 401 - 500	2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204 584 333	2545 2537 1105 1555 1274 1494 888 1113 1085 495 332 2067 2059 1463 691 1255 1321 69 216	0.0 (3) 9.9 (7) 3.1 (16) 1.3 (3) 2.7 (3) 0.0 (3) 1.3 (4) 6.7 (3) 0.0 (3) 2.0 (3) 4.0 (3) 2.5 (20) 8.0 (15) 4.3 (4) 5.3 (3) 5.7 (3) 74.0 (3) 48.3 (3) 48.3 (3) 46.0 (3)	0.0 (3) 0.0 (3) 1.5 (4) 0.0 (4) 0.0 (3) 1.4 (14) 0.0 (3) 8.7 (3) 0.0 (3) 0.0 (6) 2.5 (4) 0.7 (3) 3.4 (5) 4.2 (21) 12.6 (8) 4.4 (5) 2.8 (8) 9.8 (4) 100.3 (3) 47.0 (3) 31.3 (3) 89.0 (3)											
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520 521 524 534 535 536 537 528 529 528 529 533 533 538 539 539 539 540 541 546 546 546 546 546 546 546 547 547 548 548 549 549 549 549 549 549 549 549	201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 201 - 300 301 - 400 301 - 500 401 - 500 401 - 500 401 - 500 501 - 750 501 - 750	2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204 584 333 931 409 alysis:	2545 2537 1105 1555 1274 1455 1132 494 888 1113 1085 495 332 2067 2059 1463 691 1255 1321 69 216 230 325 418	0.0 (3) 9.9 (7) 3.1 (16) 1.3 (3) 2.7 (3) 0.0 (3) 1.3 (4) 6.7 (3) 0.0 (3) 0.0 (3) 1.4.8 (18) 2.5 (20) 8.0 (15) 4.3 (4) 5.3 (3) 5.7 (3) 74.0 (3) 63.7 (3) 46.0 (3) 3.0 (3) 63.7 (3) 63.7 (3) 63.8 (3) 63.8 (3) 63.9 (3) 63.9 (3) 64.9 (3) 65.5 (4.2	0.0 (3) 0.0 (3) 1.5 (4) 0.0 (4) 0.0 (3) 1.4 (14) 0.0 (3) 8.7 (3) 0.0 (3) 0.0 (6) 2.5 (4) 0.7 (3) 3.4 (5) 4.2 (21) 12.6 (8) 4.4 (5) 2.8 (8) 9.8 (4) 100.3 (3) 47.0 (3) 31.3 (3) 89.0 (3) 2.0 (3) 17.7 (3) 6.6											

Table 7. Mean weight (kg)of redfish per standard tow in Division 3K from 1978-1992. Upper panel show results of the Engels 145 otter trawl (MV Gadus Atlantica, 30 min tow @ 3.5 knots Lower panel show Campelen trawl convertion based on comparative fishing trials (CCGS Teleost, 15 min tow @ 3.0 knots) Number of successful sets in brackets, 'NS' = unsampled strata

strata.																	
			4070	4070	4000	4004	1000		vey Data (En		4000	4007	1000	4000	4000	4004	4000
Stratum	Depth range (m)	Area (sq.n.mi.)	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
620	201-300	2709	13.7 (5)	2.3 (3)	2.2 (3)	1.8 (10)	0.1 (9)	2.0 (10)	0.1 (13)	0.1 (14)	0.0 (9)	0.1 (14)	0.0 (12)	0.1 (15)	0.0 (8)	0.1 (14)	0.0 (3)
621	201-300	2859	0.8 (5)	0.7 (3)	2.9 (3)	0.6 (11)	0.2 (14		0.1 (14)	0.1 (15)	0.0 (14)		0.0 (10)	0.0 (17)		0.0 (5)	0.0 (3)
624	201-300	668	82.2 (4)	13.6 (2)	5.0 (2)	1.8 (2)	1.5 (4)	0.6 (4)	5.1 (4)	0.7 (4)	0.9 (2)	0.1 (3)	0.2 (3)	0.0 (3)	0.2 (4)	0.0 (2)	0.0 (3)
634	201-300	1618	84.9 (4)	7.3 (2)	33.5 (2)	7.1 (7)	42.5 (11		18.6 (7)	9.7 (9)	17.4 (5)	4.0 (11)	3.5 (6)	4.0 (7)	0.0 (2)	0.7 (25)	0.1 (25)
635	201-300	1274	88.2 (4)	159.4 (3)	12.5 (2)	1192.0 (5)	2.5 (5)	2.3 (6)	18.5 (8)	4.6 (7)	0.8 (6)	1.4 (6)	0.3 (5)	19.5 (7)	NS	0.0 (4)	0.1 (3)
636 637	201-300 201-300	1455 1132	239.7 (4) 99.0 (5)	24.0 (2) 232.4 (3)	2362.4 (2) 29.5 (2)	11.0 (6) 336.4 (6)	19.1 (10 18.2 (7)	72.5 (6) 139.2 (5)	4.9 (8) 5.0 (6)	3.9 (8) 25.9 (7)	3.4 (4) 3.3 (4)	1.4 (7) 0.8 (6)	1.7 (6) 2.4 (8)	0.7 (5) 0.9 (5)	0.5 (2)	0.3 (3)	0.0 (3) 0.0 (3)
623	301-400	1027	6.5 (3)	. NS	32.3 (2)	2.5 (4)	2.8 (5)	84.2 (6)	5.4 (5)	2.7 (6)	0.6 (4)	0.2 (5)	0.8 (5)	0.9 (5)	0.5 (2)	0.4 (6) 0.5 (6)	0.6 (3)
625	301-400	850	35.9 (3)	16.3 (2)	54.3 (2)	303.5 (4)	4.0 (2)	219.0 (3)	8.3 (5)	23.1 (5)	0.2 (3)	11.3 (4)	0.3 (4)	1.1 (4)	0.1 (4)	0.3 (3)	0.0 (3)
626	301-400	919	51.9 (3)	13.2 (2)	27.5 (2)	77.3 (5)	19.4 (5)	2.8 (4)	2.6 (6)	14.7 (5)	0.4 (4)	2.6 (5)	0.1 (5)	196.4 (5)	NS	0.5 (3)	0.0 (3)
628	301-400	1085	47.2 (2)	57.5 (3)	9.8 (2)	16.8 (6)	3.1 (6)	11.4 (6)	7.7 (7)	1.3 (6)	0.0 (3)	0.5 (5)	0.3 (5)	0.2 (4)	NS	0.0 (3)	0.0 (3)
629	301-400	499	445.6 (3)	. NS	65.0 (2)	28.3 (3)	12.5 (2)	974.0 (3)	7.7 (4)	7.4 (4)	3.6 (3)	9.4 (3)	4.5 (2)	1.3 (3)	NS	0.8 (4)	0.2 (3)
630	301-400	544	212.2 (2)	56.7 (2)	20.5 (2)	6.3 (2)	NS	36.8 (2)	114.0 (3)	14.9 (4)	13.9 (2)	1.3 (3)	0.0 (3)	0.5 (3)	NS	0.4 (3)	0.5 (3)
633 638	301-400 301-400	2179 2059	1496.1 (4) 115.9 (3)	35.2 (4) 102.6 (2)	137.0 (3) 260.1 (3)	56.6 (8) 44.3 (8)	508.5 (7) 33.1 (15	295.4 (12)) 65.6 (11)	62.5 (10) 72.9 (10)	364.3 (12) 47.0 (11)	15.1 (8) 7.4 (4)	7.9 (11) 58.7 (10)	9.0 (8) 553.3 (8)	4.2 (10) 15.4 (11)		52.5 (25) 1.9 (25)	0.6 (25)
639	301-400	1463	352.2 (4)	863.5 (2)	280.0 (2)	28.1 (6)	177.4 (10		329.9 (8)	232.8 (8)	786.5 (6)	75.6 (7)	57.7 (6)	11.9 (8)	302.4 (3)	4.7 (3)	0.2 (25) 0.3 (25)
622	401-500	632	7.3 (2)	3.3 (3)	5.8 (2)	16.3 (2)	14.2 (3)	14.0 (2)	5.5 (4)	1.0 (4)	1.8 (2)	0.4 (3)	0.1 (3)	1.0 (3)	0.7 (2)	0.4 (3)	0.4 (3)
627	401-500	1184	2.7 (2)	7.9 (3)	10.8 (2)	3.0 (6)	4.2 (7)	10.6 (6)	4.7 (8)	0.7 (7)	0.5 (5)	0.5 (6)	0.2 (5)	11.7 (6)	. NS	0.0 (3)	0.3 (3)
631	401-500	1202	6.1 (2)	9.3 (3)	16.9 (3)	5.8 (5)	2.5 (2)	23.0 (5)	140.1 (5)	73.1 (7)	4.3 (4)	3.1 (6)	3.6 (6)	5.7 (7)	1.1 (2)	1.8 (6)	3.6 (3)
640	401-500	198	488.5 (2)	NS	476.3 (2)	181.5 (2)	191.5 (2)	. NS	96.0 (2)	257.4 (3)	57.0 (2)	96.3 (2)	131.0 (2)	14.3 (2)	NS	8.3 (3)	1.3 (3)
645	401-500	204	746.6 (2)	NS	503.7 (2)	204.3 (2)	249.0 (3)	623.5 (2)	51.3 (2)	468.7 (3)	NS	210.8 (2)	210.5 (2)	620.0 (2)	57.6 (2)	14.4 (3)	3.9 (3)
641 646	501-750 501-750	584 333	370.6 (2) 1398.4 (2)	84.6 (2) 13.2 (2)	228.0 (2) 77.0 (2)	98.0 (2) 103.3 (2)	88.4 (4) 684.0 (2)	34.5 (3) 512.0 (2)	54.0 (3) 313.0 (2)	47.6 (4) 153.2 (3)	NS NS	30.2 (3) 255.5 (2)	NS NS	NS NS	6.0 (2)	11.9 (2) 44.6 (3)	1.3 (2)
642	751-1000	931	0.6 (2)	13.2 (2) NS	3.0 (2)	0.7 (3)	1.7 (6)	512.0 (2) NS	2.8 (6)	4.2 (5)	NS	1.0 (5)	NS	NS NS	8.0 (2) NS	0.0 (2)	12.7 (3) 0.6 (2)
647	751-1000	409	16.6 (2)	0.3 (2)	12.4 (2)	2.5 (2)	0.3 (2)	NS	NS NS	145.3 (3)	NS	NS NS	NS	NS	6.9 (2)	11.6 (3)	0.3 (3)
	l Analysis:	Upper	441.9	622.0	1767.4	253.4	150.9	715.8	75.6	98.9	160.4	27.0	153.8	37.9	144.7	12.1	1.1
		Mean	203.3	83.2	191.4	98.1	72.0	328.8	46.1	61.3	49.5	16.2	51.7	16.5	30.0	5.8	0.5
		Lower	-35.3	-455.5	-1384.7	-57.2	-6.9	-58.1	16.7	23.6	-61.3	5.5	-50.4	-4.9	-84.8	-0.4	0.0
Total S	urvey Biomas	s ('000 tons)	469.0	171.1	402.4	206.4	148.5	653.6	95.6 urvey Data (128.8	95.0	33.7	100.0	31.9	37.1	12.2	1.1
	Depth range	Area	1978	1979	1980	1981	1982					1987	1988	1989	1990	1991	1992
Stratum	Depth range (m)	Area (sq.n.mi.)	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
620	(m) 201-300	(sq.n.mi.) 2709	19.6 (5)	5.8 (3)	4.1 (3)	3.1 (10)	0.1 (9)	1983 2.7 (10)	0.1 (13)	0.2 (14)	0.0 (9)	0.2 (14)	0.1 (12)	0.3 (15)	0.0 (8)	0.1 (14)	0.0 (3)
620 621	(m) 201-300 201-300	(sq.n.mi.) 2709 2859	19.6 (5) 2.9 (5)	5.8 (3) 1.3 (3)	4.1 (3) 3.9 (3)	3.1 (10) 0.7 (11)	0.1 (9) 0.5 (14	2.7 (10) 0.1 (12)	0.1 (13) 0.2 (14)	0.2 (14) 0.3 (15)	0.0 (9) 0.1 (14)	0.2 (14) 0.1 (12)	0.1 (12) 0.0 (10)	0.3 (15) 0.0 (17)	0.0 (8) 0.1 NS	0.1 (14) 0.1 (5)	0.0 (3) 0.0 (3)
620 621 624	(m) 201-300 201-300 201-300	(sq.n.mi.) 2709 2859 668	19.6 (5) 2.9 (5) 324.6 (4)	5.8 (3) 1.3 (3) 49.0 (2)	4.1 (3) 3.9 (3) 6.5 (2)	3.1 (10) 0.7 (11) 6.1 (2)	0.1 (9) 0.5 (14 2.4 (4)	2.7 (10) 0.1 (12) 1.1 (4)	0.1 (13) 0.2 (14) 7.5 (4)	0.2 (14) 0.3 (15) 1.0 (4)	0.0 (9) 0.1 (14) 1.5 (2)	0.2 (14) 0.1 (12) 0.7 (3)	0.1 (12) 0.0 (10) 0.9 (3)	0.3 (15) 0.0 (17) 0.3 (3)	0.0 (8) 0.1 NS 0.6 (4)	0.1 (14) 0.1 (5) 0.0 (2)	0.0 (3) 0.0 (3) 0.1 (3)
620 621 624 634	(m) 201-300 201-300 201-300 201-300	(sq.n.mi.) 2709 2859 668 1618	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2)	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11	2.7 (10) 0.1 (12) 1.1 (4) 4322.4 (5)	0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7)	0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9)	0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7)	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2)	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25)	0.0 (3) 0.0 (3) 0.1 (3) 0.1 (25)
620 621 624 634 635	(m) 201-300 201-300 201-300 201-300 201-300	(sq.n.mi.) 2709 2859 668 1618 1274	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3)	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5)	1983 2.7 (10) 0.1 (12) 1.1 (4) 4322.4 (5) 2.6 (6)	0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8)	0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7)	0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7)	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4)	0.0 (3) 0.0 (3) 0.1 (3) 0.1 (25) 0.3 (3)
620 621 624 634	(m) 201-300 201-300 201-300 201-300	(sq.n.mi.) 2709 2859 668 1618	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2)	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11	1983 2.7 (10) 0.1 (12) 1.1 (4) 4322.4 (5) 2.6 (6)	0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7)	0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9)	0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7)	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2)	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25)	0.0 (3) 0.0 (3) 0.1 (3) 0.1 (25)
620 621 624 634 635 636 637 623	(m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 394.0 (4) 219.3 (5) 19.3 (3)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (6)	1983 2.7 (10)) 0.1 (12) 1.1 (4)) 4322.4 (5) 2.6 (6)) 77.2 (6) 174.4 (5) 74.6 (6)	1984 0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 7.2 (8) 6.1 (6) 7.4 (5)	0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7) 4.9 (8)	0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 3.6 (8) 2.0 (5)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6)	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3)	0.0 (3) 0.0 (3) 0.1 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 1.6 (3)
620 621 624 634 635 636 637 623	(m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 394.0 (4) 219.3 (5) 19.3 (3) 57.0 (3)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2)	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 39.4 (6) 3.7 (4) 283.3 (4)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2)	2.7 (10) 0.1 (12) 1.1 (4) 4322.4 (5) 2.6 (6) 77.2 (6) 174.4 (5) 74.6 (6) 227.7 (3)	1984 0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 7.2 (8) 6.1 (6) 7.4 (5) 11.6 (5)	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5)	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 1.2 (4) 0.4 (3)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 3.6 (8) 2.0 (5) 0.8 (4)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4)	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.3 (4)	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3)	0.0 (3) 0.0 (3) 0.1 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 1.6 (3) 0.0 (3)
620 621 624 634 635 636 637 623 625 626	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 394.0 (4) 219.3 (5) 19.3 (3) 57.0 (3) 67.7 (3)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2) 17.2 (2)	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2) 26.7 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2) 41.8 (5)	1983 2.7 (10) 0.1 (12) 1.1 (4) 0.4322.4 (5) 77.2 (6) 174.4 (5) 74.6 (6) 227.7 (3) 3.9 (4)	0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 7.2 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6)	0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5)	0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 1.2 (4) 0.4 (3) 1.0 (4)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.6 (8) 2.0 (5) 0.8 (4) 0.2 (5)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5)	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.3 (4) 0.0 NS	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3)	0.0 (3) 0.0 (3) 0.1 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 1.6 (3) 0.0 (3) 0.1 (3)
620 621 624 634 635 636 637 623 625 626 628	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 394.0 (4) 219.3 (5) 19.3 (3) 57.0 (3) 67.7 (3) 49.2 (2)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2) 17.2 (2) 46.6 (3)	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2) 26.7 (2) 7.9 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2) 41.8 (5) 3.7 (6)	2.7 (10) 0.1 (12) 1.1 (4) 4322.4 (5) 2.6 (6) 77.2 (6) 174.4 (5) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6)	0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 7.2 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6) 6.8 (7)	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 1.6 (6)	0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 1.2 (4) 0.4 (3) 1.0 (4) 0.0 (3)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.6 (8) 2.0 (5) 0.8 (4) 0.2 (5) 0.7 (5)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4)	0 0.0 (8) 0 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.3 (4) 0.0 NS 0.0 NS	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3)	0.0 (3) 0.0 (3) 0.1 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 1.6 (3) 0.0 (3) 0.1 (3) 0.0 (3)
620 621 624 634 635 636 637 623 625 626 628 629	(m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400	(sq.n.ml.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 394.0 (4) 219.3 (5) 19.3 (3) 57.0 (3) 67.7 (3) 49.2 (2) 402.0 (3)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2) 17.2 (2) 46.6 (3) NS	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2) 26.7 (2) 7.9 (2) 59.8 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2) 41.8 (5) 3.7 (6) 16.4 (2)	2.7 (10) 0.1 (12) 1.1 (4) 4322.4 (5) 2.6 (6) 77.2 (6) 174.4 (5) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3)	0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 7.2 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6) 6.8 (7) 13.0 (4)	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 1.6 (6) 10.4 (4)	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 0.4 (3) 1.0 (4) 0.0 (3) 6.8 (3)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5) 11.2 (3)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 2.0 (5) 0.8 (4) 0.2 (5) 0.7 (5) 5.7 (2)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4) 2.1 (3)	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.3 (4) 0.0 NS 0.0 NS 1518.5 NS	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3)	0.0 (3) 0.0 (3) 0.1 (3) 0.1 (25) 0.3 (3) 0.0 (3) 1.6 (3) 0.0 (3) 0.1 (3) 0.0 (3) 0.0 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 394.0 (4) 219.3 (5) 19.3 (3) 57.0 (3) 67.7 (3) 49.2 (2) 402.0 (3) 213.1 (2)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2) 17.2 (2) 46.6 (3) NS 62.6 (2)	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2) 7.9 (2) 59.8 (2) 27.7 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3) 9.8 (2)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2) 41.8 (5) 3.7 (6) 16.4 (2) NS	1983 2.7 (10) 0.1 (12) 1.1 (4) 4322.4 (5) 2.6 (6) 77.2 (6) 174.4 (5) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3) 60.2 (2)	1984 0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 7.2 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6) 6.8 (7) 13.0 (4) 131.7 (3)	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 1.6 (6) 10.4 (4) 15.9 (4)	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 1.2 (4) 0.4 (3) 1.0 (4) 0.0 (3) 6.8 (3) 21.8 (2)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5) 11.2 (3) 1.4 (3)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.6 (8) 2.0 (5) 0.8 (4) 0.2 (5) 0.7 (5) 5.7 (2) 0.2 (3)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4) 2.1 (3) 0.8 (3)	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.0 NS 0.0 NS 1518.5 NS 0.7 NS	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3) 1.4 (4) 0.4 (3)	0.0 (3) 0.0 (3) 0.1 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 0.1 (3) 0.0 (3) 0.1 (3) 0.0 (3) 1.3 (3)
620 621 624 634 635 636 637 623 625 626 628 629	(m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400	(sq.n.ml.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 394.0 (4) 219.3 (5) 19.3 (3) 57.0 (3) 67.7 (3) 49.2 (2) 402.0 (3)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2) 17.2 (2) 46.6 (3) NS	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2) 26.7 (2) 7.9 (2) 59.8 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2) 41.8 (5) 3.7 (6) 16.4 (2)	1983 2.7 (10) 0.1 (12) 1.1 (4) 43224 (5) 2.6 (6) 77.2 (6) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3) 60.2 (2) 447.7 (12)	0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 7.2 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6) 6.8 (7) 13.0 (4)	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 1.6 (6) 10.4 (4)	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 1.2 (4) 0.4 (3) 1.0 (4) 0.0 (3) 6.8 (3) 21.8 (2)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5) 11.2 (3)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 2.0 (5) 0.8 (4) 0.2 (5) 0.7 (5) 5.7 (2)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4) 2.1 (3)	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.3 (4) 0.0 NS 1518.5 NS 0.7 NS 22.0 (11)	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3)	0.0 (3) 0.0 (3) 0.1 (3) 0.1 (25) 0.3 (3) 0.0 (3) 1.6 (3) 0.0 (3) 0.1 (3) 0.0 (3) 0.0 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 301-400 301-400 301-400	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (3) 394.0 (4) 219.3 (5) 19.3 (3) 67.7 (3) 49.2 (2) 402.0 (3) 213.1 (2) 3271.3 (4) 271.7 (4) 472.5 (4)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2) 17.2 (2) 46.6 (3) NS 62.6 (2) 45.2 (4) 112.1 (2)	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2) 26.7 (2) 7.9 (2) 27.7 (2) 241.2 (3) 447.4 (3) 267.3 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3) 9.8 (2) 102.4 (8) 62.9 (8) 44.0 (6)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 23.5 (7) 3.5 (5) 3.7 (6) 16.4 (2) NS 740.3 (7) 44.7 (15 283.9 (10	2.7 (10) 0.1 (12) 1.1 (4) 4322.4 (5) 2.6 (6) 77.2 (6) 174.4 (5) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3) 60.2 (2) 447.7 (12) 83.4 (11) 3244.2 (7)	0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6) 6.8 (7) 13.0 (4) 131.7 (3) 87.3 (10) 94.0 (10) 439.5 (8)	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 67 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 16.6 (6) 10.4 (4) 15.9 (4) 516.2 (12) 61.7 (11) 381.5 (8)	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 1.2 (4) 0.4 (3) 1.0 (4) 0.0 (3) 6.8 (3) 21.8 (2) 21.1 (8) 9.6 (4) 885.2 (6)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5) 11.2 (3) 1.4 (3) 12.3 (11) 62.4 (10) 98.2 (7)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 3.6 (8) 2.0 (5) 0.8 (4) 0.2 (5) 0.7 (5) 5.7 (2) 0.2 (3) 14.0 (8) 568.2 (8) 97.3 (6)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4) 2.1 (3) 0.8 (3) 7.3 (10) 19.1 (11) 13.8 (8)	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.3 (4) 0.0 NS 0.0 NS 1518.5 NS 0.7 NS 22.0 (11) 133.5 (2) 196.2 (3)	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3) 1.4 (4) 0.4 (3) 72.9 (25) 3.4 (25) 9.2 (3)	0.0 (3) 0.0 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 1.6 (3) 0.0 (3) 0.1 (3) 0.0 (3) 1.3 (3) 1.5 (25) 0.4 (25) 0.6 (25)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 622	(m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 301-400 301-400 401-500	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 394.0 (4) 219.3 (5) 19.3 (3) 57.0 (3) 67.7 (3) 49.2 (2) 402.0 (3) 213.1 (2) 3271.3 (4) 271.7 (3) 472.5 (4) 29.9 (2)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2) 17.2 (2) 46.6 (3) NS 62.6 (2) 45.2 (4) 112.1 (2) 5.4 (3)	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2) 26.7 (2) 7.9 (2) 27.7 (2) 241.2 (3) 447.4 (3) 267.3 (2) 9.5 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3) 9.8 (2) 102.4 (8) 62.9 (8) 44.0 (6) 17.6 (2)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2) 41.8 (5) 3.7 (6) 16.4 (2) NS 740.3 (7) 44.7 (15 283.9 (10 14.0 (3)	2.7 (10) 0.1 (12) 1.1 (4) 43224 (5) 2.6 (6) 77.2 (6) 77.2 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3) 60.2 (2) 447.7 (12) 83.4 (11) 3244.2 (7) 14.1 (2)	0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 7.2 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6) 6.8 (7) 13.0 (4) 131.7 (3) 87.3 (10) 94.0 (10) 439.5 (8) 5.4 (4)	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (6) 10.4 (4) 15.9 (4) 516.2 (12) 61.7 (11) 381.5 (8) 2.0 (4)	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 1.2 (4) 0.4 (3) 1.0 (4) 0.0 (3) 6.8 (3) 21.8 (2) 21.1 (8) 9.6 (4) 885.2 (6) 3.4 (2)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5) 11.2 (3) 14.4 (3) 12.3 (11) 62.4 (10) 98.2 (7) 0.6 (3)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 3.6 (8) 2.0 (5) 0.8 (4) 0.2 (5) 0.7 (5) 5.7 (2) 0.2 (3) 14.0 (8) 568.2 (8) 97.3 (6) 0.2 (3)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4) 2.1 (3) 0.8 (3) 7.3 (10) 19.1 (11) 13.8 (8) 2.8 (3)	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 (S) 0.3 (5) 0.0 NS 0.0 NS 0.0 NS 1518.5 NS 0.7 NS 22.0 (11) 133.5 (2) 196.2 (3) 1.1 (2)	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3) 1.4 (4) 0.4 (3) 72.9 (25) 3.4 (25) 9.2 (3) 0.9 (3)	0.0 (3) 0.0 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 1.6 (3) 0.0 (3) 0.1 (3) 0.0 (3) 0.6 (3) 1.5 (25) 0.4 (25) 0.6 (25) 1.3 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 622	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 301-400 401-500	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 294.0 (4) 219.3 (5) 19.3 (5) 19.3 (6) 7.7 (3) 49.2 (2) 402.0 (3) 213.1 (2) 3271.3 (2) 3271.3 (4) 271.7 (3) 472.5 (4) 29.9 (2)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2) 17.2 (2) 46.6 (3) NS 62.6 (2) 45.2 (4) 112.1 (2) 1170.5 (2) 5.4 (3) 12.7 (3)	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2) 26.7 (2) 59.8 (2) 27.7 (2) 241.2 (3) 447.4 (3) 267.3 (2) 9.5 (2) 21.7 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3) 9.8 (2) 102.4 (8) 62.9 (8) 44.0 (6) 17.6 (2) 4.0 (6)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2) 41.8 (5) 3.7 (6) 16.4 (2) NS 740.3 (7) 44.7 (15 283.9 (10 14.0 (3) 7.9 (7)	2.7 (10) 0.1 (12) 1.1 (4) 4322.4 (5) 2.6 (6) 77.2 (6) 174.4 (5) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3) 60.2 (2) 447.7 (12) 83.4 (11) 3244.2 (7) 14.1 (2) 13.5 (6)	0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6) 6.8 (7) 13.0 (4) 131.7 (3) 87.3 (10) 94.0 (10) 439.5 (8) 5.4 (4) 6.6 (8)	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 16. (6) 10.4 (4) 15.9 (4) 15.6 2 (12) 61.7 (11) 381.5 (8) 2.0 (4) 1.9 (7)	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 0.4 (3) 1.0 (4) 0.0 (3) 6.8 (3) 21.8 (2) 21.1 (8) 9.6 (4) 885.2 (6) 3.4 (2) 1.1 (6)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 11.2 (3) 1.4 (3) 12.3 (11) 62.4 (10) 98.2 (7) 0.6 (3) 1.0 (6)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 3.6 (8) 2.0 (5) 0.8 (4) 0.2 (5) 0.7 (5) 5.7 (2) 0.2 (3) 14.0 (8) 568.2 (8) 97.3 (6) 0.2 (3) 0.5 (5)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4) 2.1 (3) 0.8 (3) 7.3 (10) 19.1 (11) 13.8 (8) 2.8 (3) 17.5 (6)	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.3 (4) 0.0 NS 1518.5 NS 0.7 NS 0.7 NS 22.0 (11) 133.5 (2) 196.2 (3) 1.1 (2) 5.6 NS	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3) 1.4 (4) 0.4 (3) 72.9 (25) 3.4 (25) 9.2 (3) 0.9 (3) 0.1 (3)	0.0 (3) 0.0 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 1.6 (3) 0.0 (3) 0.1 (3) 0.0 (3) 0.6 (3) 1.3 (3) 1.5 (25) 0.6 (25) 1.3 (3) 0.7 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 627 631	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 301-400 401-500	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (3) 394.0 (4) 219.3 (5) 19.3 (3) 57.0 (3) 67.7 (3) 49.2 (2) 402.0 (3) 213.1 (2) 3271.3 (4) 271.7 (3) 472.5 (4) 29.9 (2) 2.9 (2) 6.8 (2)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2) 17.2 (2) 46.6 (3) NS 62.6 (2) 45.2 (4) 112.1 (2) 1170.5 (2) 5.4 (3) 12.7 (3) 15.0 (3)	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 54.7 (2) 26.7 (2) 7.9 (2) 241.2 (3) 447.4 (3) 267.3 (2) 9.5 (2) 21.7 (2) 26.4 (3)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3) 9.8 (2) 102.4 (8) 62.9 (8) 44.0 (6) 17.6 (2) 4.0 (6) 9.4 (5)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2) 41.8 (5) 3.7 (6) 16.4 (2) NS 740.3 (7) 44.7 (15 283.9 (10 14.0 (3) 7.9 (2) 4.7 (2)	1983 2.7 (10) 0.1 (12) 1.1 (4) 1.322.4 (5) 2.6 (6) 174.4 (5) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3) 60.2 (2) 447.7 (12) 183.4 (11) 3244.2 (7) 14.1 (2) 13.5 (6) 29.2 (5)	0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 6.1 (6) 7.4 (5) 3.5 (6) 6.8 (7) 13.0 (4) 131.7 (3) 87.3 (10) 94.0 (10) 439.5 (8) 5.4 (4) 6.6 (8) 223.8 (5)	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 16. (6) 10.4 (4) 15.9 (4) 516.2 (12) 61.7 (11) 381.5 (8) 2.0 (4) 1.9 (7) 98.0 (7)	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 1.2 (4) 0.4 (3) 1.0 (4) 0.0 (3) 6.8 (3) 21.8 (2) 21.1 (8) 9.6 (4) 885.2 (6) 3.4 (2) 1.1 (5)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5) 11.2 (3) 1.4 (3) 12.3 (11) 62.4 (10) 98.2 (7) 0.6 (3) 1.0 (6) 4.4 (6)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 3.6 (8) 2.0 (5) 0.7 (5) 0.7 (5) 0.2 (3) 14.0 (8) 97.3 (6) 0.2 (3) 0.5 (5) 6.3 (6)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4) 2.1 (3) 0.8 (3) 7.3 (10) 19.1 (11) 13.8 (8) 2.8 (3) 17.5 (6) 9.0 (7)	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.3 (4) 0.0 NS 0.0 NS 1518.5 NS 0.7 NS 22.0 (11) 133.5 (2) 196.2 (3) 1.1 (2) 5.6 NS 1.3 (2)	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3) 1.4 (4) 0.4 (3) 72.9 (25) 9.2 (3) 0.9 (3) 0.9 (3) 0.1 (3) 4.2 (6)	0.0 (3) 0.0 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 1.6 (3) 0.0 (3) 0.1 (3) 0.6 (3) 1.3 (3) 1.5 (25) 0.6 (25) 1.3 (3) 9.1 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 622 627 631 640	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 401-500 401-500	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 394.0 (4) 219.3 (5) 19.3 (3) 67.7 (3) 49.2 (2) 402.0 (3) 213.1 (2) 3271.3 (4) 271.7 (3) 472.5 (4) 29.9 (2) 2.9 (2) 6.8 (2) 843.4 (2)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2) 46.6 (3) 62.6 (2) 45.2 (4) 117.1 (2) 1170.5 (2) 15.4 (3) 12.7 (3) 15.0 (3) NS	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2) 59.8 (2) 27.7 (2) 241.2 (3) 447.4 (3) 267.3 (2) 9.5 (2) 21.7 (2) 26.4 (3) 678.8 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3) 9.8 (2) 102.4 (8) 62.9 (8) 44.0 (6) 17.6 (2) 4.0 (6) 9.4 (5) 247.6 (2)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2) 41.8 (5) 3.7 (6) 16.4 (2) NS 740.3 (7) 44.7 (15 283.9 (10 14.0 (3) 7.9 (7) 4.7 (2) 271.8 (2)	1983 2.7 (10) 0.1 (12) 1.1 (4) 4322.4 (5) 2.6 (6) 77.2 (6) 174.4 (5) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3) 60.2 (2) 447.7 (12) 83.4 (11) 3244.2 (7) 14.1 (2) 13.5 (6) 29.2 (5) NS	0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 7.2 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6) 6.8 (7) 13.0 (4) 131.7 (3) 87.3 (10) 94.0 (10) 439.5 (8) 5.4 (4) 6.6 (8) 223.8 (5) 151.7 (2)	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 18.0 (6) 10.4 (4) 15.9 (4) 516.2 (12) 61.7 (11) 381.5 (8) 2.0 (4) 1.9 (7) 98.0 (7) 334.8 (3)	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 1.2 (4) 0.4 (3) 1.0 (4) 0.0 (3) 21.8 (2) 21.1 (8) 9.6 (4) 885.2 (6) 3.4 (2) 1.1 (5) 7.1 (4) 94.1 (2)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5) 11.2 (3) 1.4 (3) 12.3 (11) 62.4 (10) 98.2 (7) 0.6 (3) 1.0 (6) 4.4 (6) 141.1 (2)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 3.6 (8) 2.0 (5) 0.7 (5) 5.7 (2) 0.2 (3) 14.0 (8) 568.2 (8) 97.3 (6) 0.2 (3) 0.5 (5) 6.3 (6) 196.1 (2)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 224.7 (5) 0.4 (4) 221.1 (3) 0.8 (3) 7.3 (10) 13.8 (8) 2.8 (3) 17.5 (6) 9.0 (7) 24.1 (2)	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.0 NS 0.0 NS 0.0 NS 0.7 NS 0.22.0 (11) 133.5 (2) 196.2 (3) 1.1 (2) 5.6 NS 1.3 (2) 49.0 NS	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3) 1.4 (4) 0.4 (3) 72.9 (25) 3.4 (25) 9.2 (3) 0.9 (3) 0.1 (3) 4.2 (6) 17.9 (3)	0.0 (3) 0.0 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 1.6 (3) 0.0 (3) 0.1 (3) 0.0 (3) 1.3 (3) 1.5 (25) 0.4 (25) 1.3 (3) 0.7 (3) 0.7 (3) 0.7 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 627 631	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 301-400 401-500	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 294.0 (4) 219.3 (5) 19.3 (3) 57.0 (3) 67.7 (3) 49.2 (2) 402.0 (3) 213.1 (2) 3271.3 (4) 271.7 (3) 472.5 (4) 29.9 (2) 6.8 (2) 843.4 (2) 1075.3 (2)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2) 17.2 (2) 46.6 (3) NS 62.6 (2) 45.2 (4) 112.1 (2) 1170.5 (2) 5.4 (3) 12.7 (3) 15.0 (3)	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 54.7 (2) 26.7 (2) 7.9 (2) 241.2 (3) 447.4 (3) 267.3 (2) 9.5 (2) 21.7 (2) 26.4 (3)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3) 9.8 (2) 102.4 (8) 62.9 (8) 44.0 (6) 17.6 (2) 4.0 (6) 9.4 (5)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2) 41.8 (5) 3.7 (6) 16.4 (2) NS 740.3 (7) 44.7 (15 283.9 (10 14.0 (3) 7.9 (2) 4.7 (2)	1983 2.7 (10) 0.1 (12) 1.1 (4) 1.322.4 (5) 2.6 (6) 77.2 (6) 174.4 (5) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3) 60.2 (2) 447.7 (12) 83.4 (11) 3244.2 (7) 14.1 (2) 13.5 (6) 29.2 (5) NS 942.3 (2)	0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 6.1 (6) 7.4 (5) 3.5 (6) 6.8 (7) 13.0 (4) 131.7 (3) 87.3 (10) 94.0 (10) 439.5 (8) 5.4 (4) 6.6 (8) 223.8 (5)	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 16. (6) 10.4 (4) 15.9 (4) 516.2 (12) 61.7 (11) 381.5 (8) 2.0 (4) 1.9 (7) 98.0 (7)	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 1.2 (4) 0.4 (3) 1.0 (4) 0.0 (3) 6.8 (3) 21.8 (2) 21.1 (8) 9.6 (4) 885.2 (6) 3.4 (2) 1.1 (5)	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5) 11.2 (3) 1.4 (3) 12.3 (11) 62.4 (10) 98.2 (7) 0.6 (3) 1.0 (6) 4.4 (6)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 3.6 (8) 2.0 (5) 0.7 (5) 0.7 (5) 0.2 (3) 14.0 (8) 97.3 (6) 0.2 (3) 0.5 (5) 6.3 (6)	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4) 2.1 (3) 0.8 (3) 7.3 (10) 19.1 (11) 13.8 (8) 2.8 (3) 17.5 (6) 9.0 (7)	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.3 (4) 0.0 NS 0.0 NS 1518.5 NS 0.7 NS 22.0 (11) 133.5 (2) 196.2 (3) 1.1 (2) 5.6 NS 1.3 (2)	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3) 1.4 (4) 0.4 (3) 72.9 (25) 9.2 (3) 0.9 (3) 0.9 (3) 0.1 (3) 4.2 (6)	0.0 (3) 0.0 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 1.6 (3) 0.0 (3) 0.6 (3) 1.3 (3) 1.5 (25) 0.4 (25) 0.6 (25) 1.3 (3) 0.7 (3) 9.1 (3) 9.1 (3)
620 621 624 634 635 636 637 623 625 626 629 630 633 638 639 622 627 631 645	(m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 401-500 401-500 401-500 401-500 501-750	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 394.0 (4) 219.3 (5) 19.3 (3) 67.7 (3) 49.2 (2) 402.0 (3) 213.1 (2) 3271.3 (4) 271.7 (3) 472.5 (4) 29.9 (2) 2.9 (2) 6.8 (2) 843.4 (2)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2) 17.2 (2) 46.6 (3) NS 62.6 (2) 45.2 (4) 112.1 (2) 1170.5 (2) 5.4 (3) 12.7 (3) 15.0 (3) NS	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2) 59.8 (2) 27.7 (2) 241.2 (3) 447.4 (3) 267.3 (2) 9.5 (2) 21.7 (2) 26.4 (3) 678.8 (2) 739.6 (2) 273.0 (2) 82.5 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3) 9.8 (2) 102.4 (8) 62.9 (8) 44.0 (6) 17.6 (2) 4.0 (6) 9.4 (5) 247.6 (2) 307.3 (2)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2) 41.8 (6) 3.7 (6) 16.4 (2) NSS 740.3 (7) 44.7 (15 283.9 (10 14.0 (3) 7.9 (7) 4.7 (2) 271.8 (2) 389.4 (3)	1983 2.7 (10) 0.1 (12) 1.1 (4) 4322.4 (5) 2.6 (6) 77.2 (6) 174.4 (5) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3) 60.2 (2) 447.7 (12) 83.4 (11) 3244.2 (7) 14.1 (2) 13.5 (6) 29.2 (5) NS	1984 0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6) 6.8 (7) 13.0 (4) 131.7 (3) 87.3 (10) 94.0 (10) 439.5 (8) 5.4 (4) 6.6 (8) 223.8 (5) 151.7 (2) 77.9 (2) 65.9 (3) 332.7 (2)	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 1.6 (6) 10.4 (4) 15.9 (4) 15.9 (4) 20 (4) 19 (7) 98.0 (7)	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 1.2 (4) 0.4 (3) 1.0 (4) 0.0 (3) 6.8 (3) 21.8 (2) 21.1 (8) 9.6 (4) 885.2 (6) 3.4 (2) 1.1 (5) NS NS	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5) 11.2 (3) 14.4 (3) 12.3 (11) 62.4 (10) 98.2 (7) 0.6 (3) 1.0 (6) 4.4 (6) 141.1 (2) 258.4 (2)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 3.6 (8) 2.0 (5) 0.7 (5) 0.7 (5) 0.2 (3) 14.0 (8) 568.2 (8) 97.3 (6) 0.2 (3) 0.5 (5) 6.3 (6) 196.1 (2) 319.6 (2) NS	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4) 224.7 (5) 0.8 (3) 7.3 (10) 19.1 (11) 13.8 (8) 2.8 (3) 17.5 (6) 9.0 (7) 24.1 (2) 985.4 (2) NS	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.0 NS 0.0 NS 0.0 NS 0.7 NS 0.22.0 (11) 133.5 (2) 196.2 (3) 1.1 (2) 5.6 NS 1.3 (2) 49.0 NS 101.3 (2) 14.3 NS 8.0 (2)	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3) 1.4 (4) 0.4 (3) 72.9 (25) 3.4 (25) 9.2 (3) 0.1 (3) 4.2 (6) 17.9 (3) 28.4 (3)	0.0 (3) 0.0 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 1.6 (3) 0.0 (3) 0.1 (3) 0.0 (3) 1.3 (3) 1.5 (25) 0.4 (25) 1.3 (3) 0.7 (3) 0.7 (3) 0.7 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 622 627 631 640 645 641 642	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 401-500 401-500 401-500 401-500 501-750 751-1000	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204 584 333 931	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 294.0 (4) 219.3 (5) 19.3 (3) 57.0 (3) 67.7 (3) 49.2 (2) 402.0 (3) 213.1 (2) 3271.3 (2) 3271.3 (2) 3271.3 (4) 271.7 (3) 472.5 (4) 29.9 (2) 6.8 (2) 843.4 (2) 1075.3 (2) 463.6 (2) 1675.9 (2) 0.9 (2)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2) 46.6 (3) NS 62.6 (2) 45.2 (4) 112.1 (2) 1170.5 (3) 12.7 (3) 15.0 (3) NS 95.3 (2) 14.7 (2) NS	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2) 26.7 (2) 7.9 (2) 27.7 (2) 241.2 (3) 447.4 (3) 267.3 (2) 9.5 (2) 21.7 (2) 26.4 (3) 678.8 (2) 739.6 (2) 273.0 (2) 82.5 (2) 3.2 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3) 9.8 (2) 102.4 (8) 62.9 (8) 44.0 (6) 17.6 (2) 4.0 (6) 9.4 (5) 247.6 (2) 307.3 (2) 124.7 (2) 106.8 (2) 0.8 (3)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2) 41.8 (5) 3.7 (6) 16.4 (2) NS 740.3 (7) 44.7 (15) 283.9 (10 14.0 (3) 7.9 (7) 4.7 (2) 271.8 (2) 389.4 (3) 115.2 (4) 810.8 (2) 2.3 (6)	1983 2.7 (10) 0.1 (12) 1.1 (4) 1.322.4 (5) 2.6 (6) 77.2 (6) 174.4 (5) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3) 60.2 (2) 447.7 (12) 83.4 (11) 3244.2 (7) 14.1 (2) 13.5 (6) 29.2 (5) NS 942.3 (2) 37.9 (3) 632.2 (2) NS	1984 0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6) 6.8 (7) 13.0 (4) 131.7 (3) 87.3 (10) 94.0 (10) 439.5 (8) 6.6 (8) 223.8 (5) 151.7 (2) 77.9 (2) 65.9 (3) 332.7 (2) 3.2 (6)	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 16. (6) 10.4 (4) 15.9 (4) 15.9 (4) 15.1 (8) 2.0 (4) 1.9 (7) 98.0 (7	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 0.4 (3) 1.0 (4) 0.0 (3) 6.8 (3) 21.8 (2) 21.1 (8) 9.6 (4) 885.2 (6) 3.4 (2) 1.1 (5) 7.1 (4) 94.1 (2) NS NS NS	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5) 11.2 (3) 14.4 (3) 12.3 (11) 62.4 (10) 98.2 (7) 0.6 (3) 1.0 (6) 4.4 (6) 141.1 (2) 258.4 (2) 33.8 (3) 248.2 (2) 1.1 (5)	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 3.6 (8) 2.0 (5) 0.8 (4) 0.2 (5) 0.7 (5) 5.7 (2) 0.2 (3) 14.0 (8) 568.2 (8) 97.3 (6) 0.2 (3) 0.5 (5) 6.3 (6) 196.1 (2) 319.6 (2) NS NS	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4) 221.1 (3) 0.8 (3) 7.3 (10) 19.1 (11) 13.8 (8) 2.8 (3) 17.5 (6) 9.0 (7) 24.1 (2) 985.4 (2) NS NS	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.0 NS 0.0 NS 0.0 NS 1518.5 NS 0.7 NS 22.0 (11) 133.5 (2) 196.2 (3) 1.1 (2) 5.6 NS 1.3 (2) 49.0 NS 101.3 (2) 14.3 NS 8.0 (2) 1.5 NS	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3) 1.4 (4) 0.4 (3) 72.9 (25) 3.4 (25) 9.2 (3) 0.1 (3) 4.2 (6) 17.9 (3) 28.4 (3) 18.2 (2) 78.8 (3) 0.0 (2)	0.0 (3) 0.0 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 1.6 (3) 0.0 (3) 0.1 (3) 0.0 (3) 1.3 (3) 1.5 (25) 0.4 (25) 1.3 (3) 0.7 (3) 9.1 (3) 9.2 (3) 6.8 (3) 2.9 (2) 24.9 (2)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 622 627 631 645 641 646 646	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 401-500 401-500 401-500 501-750 501-750 501-750 751-1000	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204 584 333 931 409	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 394.0 (4) 219.3 (5) 19.3 (3) 67.7 (3) 49.2 (2) 402.0 (3) 213.1 (2) 3271.3 (4) 2271.7 (3) 472.5 (4) 29.9 (2) 2.9 (2) 6.8 (2) 843.4 (2) 1075.3 (2) 1675.9 (2) 0.9 (2) 18.0 (2)	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2) 17.2 (2) 46.6 (3) NS 62.6 (2) 45.2 (4) 112.1 (2) 1170.5 (2) 5.4 (3) 12.7 (3) 15.0 (3) NS NS 95.3 (2) 14.7 (2) 0.3 (2)	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 54.7 (2) 26.7 (2) 7.9 (2) 241.2 (3) 447.4 (3) 267.3 (2) 9.5 (2) 21.7 (2) 26.4 (3) 678.8 (2) 27.3 (2) 82.5 (2) 3.2 (2) 3.2 (2) 18.8 (2)	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3) 9.8 (2) 102.4 (8) 62.9 (8) 44.0 (6) 17.6 (2) 4.0 (6) 9.4 (5) 247.6 (2) 307.3 (2) 124.7 (2) 106.8 (2) 0.8 (3) 3.8 (2)	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2) 41.8 (5) 3.7 (6) 16.4 (2) NS 740.3 (7) 44.7 (15 283.9 (10 14.0 (3) 7.9 (7) 4.7 (2) 271.8 (2) 389.4 (3) 115.2 (4) 810.8 (2) 2.3 (6) 0.2 (2)	1983 2.7 (10) 0.1 (12) 1.1 (4) 1.322.4 (5) 2.6 (6) 1.74.4 (5) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3) 60.2 (2) 447.7 (12) 83.4 (11) 3244.2 (7) 14.1 (2) 13.5 (6) 29.2 (5) NS 942.3 (2) 37.9 (3) 632.2 (2) NS NS	1984 0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6) 6.8 (7) 13.0 (4) 131.7 (3) 87.3 (10) 94.0 (10) 439.5 (8) 5.4 (4) 6.6 (8) 223.8 (5) 151.7 (2) 65.9 (3) 332.7 (2) 3.2 (6) NS	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 67 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 1.6 (6) 10.4 (4) 15.9 (4) 516.2 (12) 61.7 (11) 381.5 (8) 2.0 (4) 1.9 (7) 98.0 (7) 334.8 (3) 67.1 (4) 183.0 (3) 65 (5) 150.0 (3)	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 0.4 (3) 1.0 (4) 0.0 (3) 6.8 (3) 21.8 (2) 21.1 (8) 9.6 (4) 885.2 (6) 3.4 (2) 1.1 (5) 7.1 (4) 94.1 (2) NS NS NS NS	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5) 11.2 (3) 1.4 (3) 12.3 (11) 62.4 (10) 98.2 (7) 0.6 (3) 1.0 (6) 4.4 (6) 141.1 (2) 258.4 (2) 33.8 (3) 248.2 (2) 1.1 (5) NS	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 3.6 (8) 2.0 (5) 0.8 (4) 0.2 (5) 0.7 (5) 0.2 (3) 14.0 (8) 97.3 (6) 0.2 (3) 0.5 (5) 6.3 (6) 196.1 (2) 319.6 (2) NS NS NS	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4) 2.1 (3) 0.8 (3) 7.3 (10) 19.1 (11) 13.8 (8) 2.8 (3) 17.5 (6) 9.0 (7) 24.1 (2) 985.4 (2) NS NS	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.3 (4) 0.0 NS 1518.5 NS 0.7 NS 22.0 (11) 133.5 (2) 196.2 (3) 1.1 (2) 49.0 NS 101.3 (2) 49.0 NS 101.3 (2) 14.3 NS 8.0 (2) 1.5 NS 7.1 (2)	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3) 1.4 (4) 0.4 (3) 72.9 (25) 9.2 (3) 0.9 (3) 0.1 (3) 4.2 (6) 17.9 (3) 28.4 (3) 18.2 (2) 78.8 (3) 0.0 (2)	0.0 (3) 0.0 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 1.6 (3) 0.0 (3) 0.1 (3) 0.0 (3) 1.3 (3) 1.5 (25) 0.6 (25) 1.3 (3) 0.7 (3) 9.1 (3) 3.2 (3) 9.1 (3) 3.2 (3) 9.1 (3) 3.2 (3) 9.1 (3) 3.2 (3) 9.1 (3) 9.1 (3) 9.1 (3) 9.2 (3) 9.3 (3) 9.5 (3) 9.7 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 622 627 631 645 641 646 646	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 401-500 401-500 401-500 401-500 501-750 751-1000	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204 584 333 931 409 Upper	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 394.0 (4) 219.3 (5) 19.3 (3) 67.7 (3) 49.2 (2) 402.0 (3) 213.1 (2) 3271.3 (4) 271.7 (4) 29.9 (2) 2.9 (2) 2.9 (2) 8.8 (2) 843.4 (2) 1075.3 (2) 463.6 (2) 1675.9 (2) 0.9 (2) 18.0 (2) 978.2	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS (23.5 (2) 17.2 (2) 46.6 (3) NS 62.6 (2) 45.2 (4) 117.0 (2) 5.4 (3) 12.7 (3) 15.0 (3) NS NS S 95.3 (2) 14.7 (2) NS 0.3 (2) 833.2	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2) 26.7 (2) 7.9 (2) 241.2 (3) 447.4 (3) 267.3 (2) 9.5 (2) 21.7 (2) 26.4 (3) 678.8 (2) 739.6 (2) 739.6 (2) 739.6 (2) 82.5 (2) 3.2 (2) 18.8 (2) 1805.1	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3) 9.8 (2) 102.4 (8) 62.9 (8) 44.0 (6) 17.6 (2) 4.0 (6) 9.4 (5) 247.6 (2) 307.3 (2) 124.7 (2) 106.8 (2) 0.8 (3) 3.8 (2) 333.7	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 3.7 (6) 16.4 (2) 41.8 (5) 3.7 (6) 16.4 (2) 42.8 (7) 44.7 (15 283.9 (10 14.0 (3) 7.9 (7) 4.7 (2) 271.8 (2) 389.4 (3) 115.2 (8) 115.2 (8) 2.3 (6) 0.2 (2) 216.2	1983 2.7 (10) 0.1 (12) 1.1 (4) 0.322.4 (5) 2.6 (6) 0.77.2 (6) 174.4 (5) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3) 60.2 (2) 447.7 (12) 13.5 (6) 29.2 (5) NS 942.3 (2) 37.9 (3) 632.2 (2) NS NS NS 1261.1	1984 0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6) 6.8 (7) 13.0 (4) 131.7 (3) 87.3 (10) 94.0 (10) 439.5 (8) 5.4 (4) 6.6 (8) 223.8 (5) 151.7 (2) 77.9 (2) 65.9 (3) 332.7 (2) 3.2 (6) NS	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 67 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 16.6 (6) 10.4 (4) 15.9 (4) 516.2 (12) 61.7 (11) 381.5 (8) 2.0 (4) 1.9 (7) 334.8 (3) 741.3 (3) 67.1 (4) 183.0 (3) 65. (5) 150.0 (3)	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 1.0 (4) 0.4 (3) 1.0 (4) 0.0 (3) 21.8 (2) 21.1 (8) 9.6 (4) 885.2 (6) 3.4 (2) 1.1 (5) NS NS NS NS NS NS NS NS	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5) 11.2 (3) 1.4 (3) 12.3 (11) 62.4 (10) 98.2 (7) 0.6 (3) 1.0 (6) 4.4 (6) 141.1 (2) 258.4 (2) 33.8 (3) 248.2 (2) 1.1 (5) NS 31.9	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 3.6 (8) 2.0 (5) 0.7 (5) 0.7 (5) 0.2 (3) 14.0 (8) 568.2 (8) 97.3 (6) 0.2 (3) 0.5 (5) 0.2 (3) 14.0 (8) 568.2 (8) 97.3 (6) 0.2 (3) 0.5 (5) 0.8 (8) 196.1 (2) 319.6 (2) NS NS NS NS	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4) 2.1 (3) 0.8 (3) 7.3 (10) 19.1 (11) 13.8 (8) 2.8 (3) 17.5 (6) 9.0 (7) 24.1 (2) 985.4 (2) NS NS NS NS	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.0 NS 0.0 NS 0.0 NS 0.7 NS 0.22.0 (11) 133.5 (2) 196.2 (3) 1.1 (2) 5.6 NS 1.3 (2) 49.0 NS 101.3 (2) 14.3 NS 8.0 (2) 1.5 NS 7.1 (2) 426.6	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3) 1.4 (4) 0.4 (3) 72.9 (25) 3.4 (25) 9.2 (3) 0.9 (3) 0.1 (3) 4.2 (6) 17.9 (3) 28.4 (3) 18.2 (2) 78.8 (3) 0.0 (2) 15.1 (3)	0.0 (3) 0.0 (3) 0.1 (25) 0.3 (3) 0.1 (25) 0.3 (3) 0.0 (3) 1.6 (3) 0.0 (3) 1.3 (3) 1.5 (25) 0.6 (25) 1.3 (3) 0.7 (3) 9.1 (3) 3.2 (3) 6.8 (3) 2.9 (2) 24.9 (3) 0.9 (2) 0.5 (3)
620 621 624 634 635 636 637 623 625 626 628 629 630 633 638 639 627 631 640 645 641 646 645	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 401-500 401-500 401-500 501-750 501-750 501-750 751-1000	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204 584 333 931 409 Upper Mean	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 394.0 (4) 219.3 (5) 19.3 (3) 57.0 (3) 67.7 (3) 49.2 (2) 402.0 (3) 213.1 (2) 3271.3 (4) 271.7 (3) 472.5 (4) 29.9 (2) 6.8 (2) 1075.3 (2) 463.6 (2) 1675.9 (2) 18.0 (2) 978.2 383.8	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 23.5 (2) 46.6 (3) NS 62.6 (2) 45.2 (4) 112.1 (2) 1170.5 (3) 15.0 (3) NS 95.3 (2) 14.7 (2) NS 95.3 (2) NS 933.2 (2) 833.2	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2) 26.7 (2) 7.9 (2) 59.8 (2) 27.7 (2) 241.2 (3) 447.4 (3) 267.3 (2) 9.5 (2) 21.7 (2) 26.4 (3) 678.8 (2) 739.6 (2) 273.0 (2) 82.5 (2) 82.5 (2) 82.5 (2) 82.5 (2) 18.8 (2) 1805.1	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3) 9.8 (2) 102.4 (8) 62.9 (8) 44.0 (6) 17.6 (2) 4.0 (6) 9.4 (5) 247.6 (2) 307.3 (2) 124.7 (2) 106.8 (2) 0.8 (3) 3.8 (2) 333.7	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2) 41.8 (5) 3.7 (6) 16.4 (2) NS 740.3 (7) 44.7 (15 283.9 (10 14.0 (3) 7.9 (7) 4.7 (2) 271.8 (2) 389.4 (3) 115.2 (4) 810.8 (2) 2.3 (6) 0.2 (2) 216.2 103.2	1983 2.7 (10) 0.1 (12) 1.1 (4) 1.22.4 (5) 2.6 (6) 77.2 (6) 174.4 (5) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3) 60.2 (2) 447.7 (12) 13.5 (6) 29.2 (5) NS 942.3 (2) 37.9 (3) NS 1261.1 552.2	1984 0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 7.2 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6) 6.8 (7) 13.0 (4) 131.7 (3) 87.3 (10) 94.0 (10) 439.5 (8) 6.6 (8) 223.8 (5) 151.7 (2) 77.9 (2) 65.9 (3) 332.7 (2) 3.2 (6) NS 100.1 61.8	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 6.7 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 16. (6) 10.4 (4) 15.9 (4) 516.2 (12) 61.7 (11) 381.5 (8) 2.0 (4) 1.9 (7) 98.0 (7) 98.	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 0.4 (3) 1.0 (4) 0.0 (3) 6.8 (3) 21.8 (2) 21.1 (8) 9.6 (4) 885.2 (6) 3.4 (2) 3.1 (6) 7.1 (4) 94.1 (2) NS NS NS NS NS NS NS NS NS 180.8 180.8	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5) 11.2 (3) 1.4 (3) 12.3 (11) 62.4 (10) 98.2 (7) 0.6 (3) 1.0 (6) 4.4 (6) 141.1 (2) 258.4 (2) 33.8 (3) 248.2 (2) 1.1 (5) NS 31.9 19.4	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 3.6 (8) 2.0 (5) 0.7 (5) 5.7 (2) 0.2 (3) 14.0 (8) 568.2 (8) 97.3 (6) 0.2 (3) 0.5 (5) 6.3 (6) 196.1 (2) 319.6 (2) NS NS NS NS NS NS NS	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4) 2.1 (3) 0.8 (3) 7.3 (10) 19.1 (11) 13.8 (3) 17.5 (6) 9.0 (7) 24.1 (2) 985.4 (2) NS NS NS NS NS NS NS 17.7 (22.0	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.3 (4) 0.0 NS 1518.5 NS 0.7 NS 0.20 (11) 133.5 (2) 196.2 (3) 1.1 (2) 5.6 NS 1.3 (2) 49.0 NS 101.3 (2) 14.3 NS 8.0 (2) 1.5 NS 7.1 (2) 426.6 51.0	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3) 1.4 (4) 0.4 (3) 72.9 (25) 3.4 (25) 9.2 (3) 0.1 (3) 4.2 (6) 17.9 (3) 28.4 (3) 18.2 (2) 78.8 (3) 0.0 (2) 15.1 (3) 17.3	0.0 (3) 0.0 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 1.6 (3) 0.0 (3) 0.1 (3) 0.0 (3) 1.5 (25) 0.4 (25) 1.3 (3) 0.7 (3) 9.1 (3) 0.6 (25) 1.3 (3) 0.7 (3) 9.1 (3) 0.9 (2) 0.9 (2) 0.9 (2) 0.9 (2) 0.9 (2) 0.9 (2) 0.9 (2) 0.9 (2)
620 621 624 634 635 636 637 623 625 626 629 630 633 638 639 640 641 645 641 645 642 647 Stratified	(m) 201-300 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 301-500 401-500 401-500 401-500 501-750 501-750 501-750 751-1000	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204 584 333 931 409 Upper Mean Lower	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (4) 394.0 (4) 219.3 (5) 19.3 (3) 67.7 (3) 49.2 (2) 402.0 (3) 213.1 (2) 3271.3 (4) 271.7 (4) 29.9 (2) 2.9 (2) 2.9 (2) 8.8 (2) 843.4 (2) 1075.3 (2) 463.6 (2) 1675.9 (2) 0.9 (2) 18.0 (2) 978.2	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS (23.5 (2) 17.2 (2) 46.6 (3) NS 62.6 (2) 45.2 (4) 117.0 (2) 5.4 (3) 12.7 (3) 15.0 (3) NS NS S 95.3 (2) 14.7 (2) NS 0.3 (2) 833.2	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2) 26.7 (2) 7.9 (2) 241.2 (3) 447.4 (3) 267.3 (2) 9.5 (2) 21.7 (2) 26.4 (3) 678.8 (2) 739.6 (2) 739.6 (2) 739.6 (2) 82.5 (2) 3.2 (2) 18.8 (2) 1805.1	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3) 9.8 (2) 102.4 (8) 62.9 (8) 44.0 (6) 17.6 (2) 4.0 (6) 9.4 (5) 247.6 (2) 307.3 (2) 124.7 (2) 106.8 (2) 0.8 (3) 3.8 (2) 333.7	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 3.7 (6) 16.4 (2) 41.8 (5) 3.7 (6) 16.4 (2) 42.8 (7) 44.7 (15 283.9 (10 14.0 (3) 7.9 (7) 4.7 (2) 271.8 (2) 389.4 (3) 115.2 (8) 115.2 (8) 2.3 (6) 0.2 (2) 216.2	1983 2.7 (10) 0.1 (12) 1.1 (4) 0.322.4 (5) 2.6 (6) 0.77.2 (6) 174.4 (5) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3) 60.2 (2) 447.7 (12) 13.5 (6) 29.2 (5) NS 942.3 (2) 37.9 (3) 632.2 (2) NS NS NS 1261.1	1984 0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6) 6.8 (7) 13.0 (4) 131.7 (3) 87.3 (10) 94.0 (10) 439.5 (8) 5.4 (4) 6.6 (8) 223.8 (5) 151.7 (2) 77.9 (2) 65.9 (3) 332.7 (2) 3.2 (6) NS	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 67 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 16.6 (6) 10.4 (4) 15.9 (4) 516.2 (12) 61.7 (11) 381.5 (8) 2.0 (4) 1.9 (7) 334.8 (3) 741.3 (3) 67.1 (4) 183.0 (3) 65. (5) 150.0 (3)	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 1.0 (4) 0.4 (3) 1.0 (4) 0.0 (3) 21.8 (2) 21.1 (8) 9.6 (4) 885.2 (6) 3.4 (2) 1.1 (5) NS NS NS NS NS NS NS NS	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5) 11.2 (3) 1.4 (3) 12.3 (11) 62.4 (10) 98.2 (7) 0.6 (3) 1.0 (6) 4.4 (6) 141.1 (2) 258.4 (2) 33.8 (3) 248.2 (2) 1.1 (5) NS 31.9	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 3.6 (8) 2.0 (5) 0.7 (5) 0.7 (5) 0.2 (3) 14.0 (8) 568.2 (8) 97.3 (6) 0.2 (3) 0.5 (5) 0.2 (3) 14.0 (8) 568.2 (8) 97.3 (6) 0.2 (3) 0.5 (5) 0.8 (8) 196.1 (2) 319.6 (2) NS NS NS NS	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4) 2.1 (3) 0.8 (3) 7.3 (10) 19.1 (11) 13.8 (8) 2.8 (3) 17.5 (6) 9.0 (7) 24.1 (2) 985.4 (2) NS NS NS NS	0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.0 NS 0.0 NS 0.0 NS 0.7 NS 0.22.0 (11) 133.5 (2) 196.2 (3) 1.1 (2) 5.6 NS 1.3 (2) 49.0 NS 101.3 (2) 14.3 NS 8.0 (2) 1.5 NS 7.1 (2) 426.6	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3) 1.4 (4) 0.4 (3) 72.9 (25) 3.4 (25) 9.2 (3) 0.9 (3) 0.1 (3) 4.2 (6) 17.9 (3) 28.4 (3) 18.2 (2) 78.8 (3) 0.0 (2) 15.1 (3)	0.0 (3) 0.0 (3) 0.1 (25) 0.3 (3) 0.1 (25) 0.3 (3) 0.0 (3) 1.6 (3) 0.0 (3) 1.3 (3) 1.5 (25) 0.6 (25) 1.3 (3) 0.7 (3) 9.1 (3) 3.2 (3) 6.8 (3) 2.9 (2) 24.9 (3) 0.9 (2) 0.5 (3)
620 621 624 634 635 636 637 623 625 628 629 630 633 639 622 627 631 640 645 641 646 642 647 Stratified	(m) 201-300 201-300 201-300 201-300 201-300 201-300 301-400 301-400 301-400 301-400 301-400 301-400 301-400 301-500 401-500	(sq.n.mi.) 2709 2859 668 1618 1274 1455 1132 1027 850 919 1085 499 544 2179 2059 1463 632 1184 1202 198 204 584 333 931 409 Upper Mean Lower	19.6 (5) 2.9 (5) 324.6 (4) 153.8 (4) 244.6 (3) 394.0 (4) 219.3 (5) 19.3 (3) 57.0 (3) 67.7 (3) 49.2 (2) 402.0 (3) 213.1 (2) 3271.3 (4) 29.9 (2) 29.8 (2) 843.4 (2) 1075.3 (2) 1675.9 (2) 0.9 (2) 18.0 (2) 978.2 383.8 -210.6	5.8 (3) 1.3 (3) 49.0 (2) 11.5 (2) 165.7 (3) 46.2 (2) 360.7 (3) NS 62.6 (2) 45.2 (4) 112.1 (2) 1170.5 (2) 5.4 (3) 12.7 (3) NS 95.3 (2) 14.7 (2) NS	4.1 (3) 3.9 (3) 6.5 (2) 59.7 (2) 24.2 (2) 2327.3 (2) 67.3 (2) 42.3 (2) 54.7 (2) 26.7 (2) 29.8 (2) 27.7 (2) 24.1.2 (3) 267.3 (2) 9.5 (2) 21.7 (2) 26.4 (3) 678.8 (2) 27.30 (2) 82.5 (2) 3.2 (2) 18.8 (2) 18.8 (2) -1364.8	3.1 (10) 0.7 (11) 6.1 (2) 14.8 (7) 1592.4 (5) 18.3 (6) 399.4 (6) 3.7 (4) 283.3 (4) 86.1 (5) 18.6 (6) 29.2 (3) 9.8 (2) 102.4 (8) 4.0 (6) 17.6 (2) 4.0 (6) 9.4 (5) 247.6 (2) 307.3 (2) 124.7 (2) 106.8 (2) 0.8 (3) 3.8 (2) 333.7 127.6 -78.4 491.9	0.1 (9) 0.5 (14 2.4 (4) 60.0 (11 2.9 (5) 20.1 (10 23.5 (7) 3.5 (5) 6.1 (2) 41.8 (5) 3.7 (6) 16.4 (2) NS 740.3 (7) 44.7 (15 283.9 (10 14.0 (3) 7.9 (7) 4.7 (2) 271.8 (2) 389.4 (3) 115.2 (4) 810.8 (2) 2.3 (6) 0.2 (2) 216.2 103.2 -9.8	1983 2.7 (10) 0.1 (12) 1.1 (4) 1.322.4 (5) 2.6 (6) 1.74.4 (5) 74.6 (6) 227.7 (3) 3.9 (4) 11.0 (6) 1223.5 (3) 60.2 (2) 447.7 (12) 83.4 (11) 3244.2 (7) 14.1 (2) 13.5 (6) 29.2 (5) NS 942.3 (2) 37.9 (3) 632.2 (2) NS NS 1261.1 552.2 -156.7	1984 0.1 (13) 0.2 (14) 7.5 (4) 25.7 (7) 23.7 (8) 6.1 (6) 7.4 (5) 11.6 (5) 3.5 (6) 6.8 (7) 13.0 (4) 131.7 (3) 87.3 (10) 94.0 (10) 439.5 (8) 5.4 (4) 6.6 (8) 223.8 (5) 151.7 (2) 77.9 (2) 65.9 (3) 332.7 (2) 3.2 (6) NS 100.1 61.8 23.5	1985 0.2 (14) 0.3 (15) 1.0 (4) 14.5 (9) 67 (7) 4.9 (8) 35.2 (7) 3.2 (6) 36.3 (5) 18.0 (5) 1.6 (6) 10.4 (4) 15.9 (4) 156.2 (2) 61.7 (11) 381.5 (8) 2.0 (4) 1.9 (7) 98.0 (7) 334.8 (3) 67.1 (4) 183.0 (3) 65.5 (5) 150.0 (3) 142.9 87.9 33.0	1986 0.0 (9) 0.1 (14) 1.5 (2) 23.5 (5) 1.9 (6) 6.1 (4) 4.8 (4) 1.2 (4) 0.4 (3) 1.0 (4) 0.0 (3) 6.8 (3) 21.8 (2) 21.1 (8) 9.6 (4) 885.2 (6) 3.4 (2) 1.1 (5) 7.1 (4) 94.1 (2) NS NS NS NS NS NS NS NS 180.8 57.3 -66.1	0.2 (14) 0.1 (12) 0.7 (3) 6.5 (11) 2.0 (6) 2.4 (7) 1.7 (6) 0.6 (5) 15.5 (4) 5.0 (5) 0.9 (5) 11.2 (3) 1.4 (3) 12.3 (11) 62.4 (10) 98.2 (7) 0.6 (3) 1.0 (6) 4.4 (6) 141.1 (2) 258.4 (2) 33.8 (3) 248.2 (2) 1.1 (5) NS 31.9 19.4 6.9	0.1 (12) 0.0 (10) 0.9 (3) 5.3 (6) 1.0 (5) 3.0 (6) 3.6 (8) 2.0 (5) 0.8 (4) 0.2 (5) 0.7 (5) 0.2 (3) 14.0 (8) 97.3 (6) 0.2 (3) 0.5 (5) 6.3 (6) 196.1 (2) 319.6 (2) 319.6 (2) NS	0.3 (15) 0.0 (17) 0.3 (3) 6.3 (7) 20.0 (7) 1.2 (5) 1.6 (5) 1.1 (6) 3.0 (4) 224.7 (5) 0.4 (4) 2.1 (3) 0.8 (3) 7.3 (10) 19.1 (11) 13.8 (8) 2.8 (3) 17.5 (6) 9.0 (7) 24.1 (2) 985.4 (2) 985.4 (2) NS NS NS NS NS NS NS NS O 1.7	0.0.0 (8) 0.1 NS 0.6 (4) 1.3 (2) 1.2 NS 0.3 NS 0.4 (2) 0.3 (5) 0.3 (4) 0.0 NS 1518.5 NS 0.7 NS 22.0 (11) 133.5 (2) 196.2 (3) 1.1 (2) 49.0 NS 101.3 (2) 49.0 NS 101.3 (2) 14.3 NS 8.0 (2) 15.5 NS 7.1 (2) 426.6 51.0 -324.7	0.1 (14) 0.1 (5) 0.0 (2) 1.2 (25) 0.1 (4) 0.3 (3) 0.5 (6) 0.9 (6) 0.5 (3) 1.0 (3) 0.2 (3) 1.4 (4) 0.4 (3) 72.9 (25) 9.2 (3) 0.9 (3) 4.2 (6) 17.9 (3) 4.2 (6) 17.9 (3) 18.2 (2) 78.8 (3) 0.0 (2) 15.1 (3) 17.3 8.7 0.1	0.0 (3) 0.0 (3) 0.1 (25) 0.3 (3) 0.1 (3) 0.0 (3) 1.6 (3) 0.0 (3) 0.1 (3) 0.0 (3) 1.3 (3) 1.5 (25) 0.6 (25) 1.3 (3) 0.7 (3) 9.1 (3) 3.2 (3) 6.8 (3) 2.9 (2) 24.9 (3) 0.9 (2) 25.5 (3) 2.6 (1.2) -0.1

Table 8. Mean weight (kg) of redfish per standard tow in Division 3K from 1993-1994. Upper panel shows results of the Engels 145 otter trawl (MV Gadus Atlantica, 30 min tow @ 3.5 knots). Lower panel show Campelen trawl convertion based on comparative fishing trials (CCGS Teleost, 15 min tow @ 3.0 knots) Number of successful sets in brackets, 'NS' = unsampled strata.

LOVVEI	parier silo	w Campei				ve fishing thats (CCGS Teleost, 13 milit tow @ 5.0 knots) Number of successful sets in blackets, NS – unsampled strata.
				Original Sur	vey Data (Engel 1	13)
	Depth range	Area (sq.n.mi.)	Area (sq.n.mi.)	1993	1994	
Stratum		1978-1992	1993-Onwards	1993	1994	
620	201 - 300	2709	2545	0.0 (3)	0.0 (5)	
621	201 - 300	2859	2537	0.0 (3)	0.0 (3)	
624	201 - 300	668	1105	0.1 (7)	0.0 (3)	
634	201 - 300	1618	1555	0.2 (16)		
635	201 - 300	1274	1274	0.2 (3)	0.0 (4)	
636	201 - 300	1455	1455	0.1 (3)	0.0 (3)	
637	201 - 300	1132	1132	0.0 (3)	0.0 (14)	
623	301 - 400	1027	494	0.1 (4)	0.0 (3)	Note: Survey area was restratified based on revised
625	301 - 400	850	888	0.4 (3)	0.1 (3)	Note: Survey area was restratified based on revised
626	301 - 400	919	1113	0.0 (3)	0.0 (3)	by drography objects and implemented on the 1002 author
628	301 - 400	1085	1085	0.1 (3)	0.0 (6)	hydrography charts and implemented on the 1993 survey
629	301 - 400	499	495	0.0 (3)	0.3 (4)	For further information and Pichen (1004) Murphy (1006)
630	301 - 400	544	332	0.0 (3)	0.1 (3)	For further information see Bishop (1994), Murphy (1996))
633	301 - 400	2179	2067	0.6 (18)		
638	301 - 400	2059	2059	0.3 (20)		
639	301 - 400	1463	1463	0.4 (15)		
622	401 - 500	632	691	0.3 (4)	0.2 (5)	
627	401 - 500	1184	1255 1321	0.1 (3)	0.2 (8)	
631 640	401 - 500 401 - 500	1202 198	69	0.1 (3) 4.1 (3)	0.3 (4) 3.7 (3)	
645	401 - 500	204	216	4.1 (3)	4.3 (3)	
641	501 - 750	584	230	6.5 (3)	4.9 (3)	
646	501 - 750	333	325	5.8 (3)	10.2 (3)	
642	751 -1000	931	418	0.8 (3)	0.1 (3)	
647	751 -1000	409	360	0.5 (3)	4.9 (3)	
	Stratified Ana	alysis:	Upper	0.5	0.7	
			Mean	0.4	0.4	
			Lower	0.3	0.2	
	Tot	al Survey Bi	omass ('000 tons)	0.9	0.9	
						pelen Equivalents)
011	Depth range	Area	Area	1993	1994	
Stratum		(sq.n.mi.)	(sq.n.mi.)	0.0 (2)	0.0 (5)	
620 621	201 - 300 201 - 300	2709 2859	2545 2537	0.0 (3) 0.0 (3)	0.0 (5) 0.0 (3)	
624	201 - 300	668	1105	0.3 (7)	0.0 (3)	
634	201 - 300	1618	1555	0.5 (16)		
635	201 - 300	1274	1274	0.3 (3)	0.0 (4)	
636	201 - 300	1455	1455	0.2 (3)	0.0 (3)	
637	201 - 300	1132	1132	0.0 (3)	0.0 (14)	
623	301 - 400	1027	494	0.3 (4)	0.0 (3)	
625	301 - 400	850	888	1.0 (3)	0.6 (3)	
626	301 - 400	919	1113	0.0 (3)	0.0 (3)	
628	301 - 400	1085	1085	0.2 (3)	0.0 (6)	
629	301 - 400	499	495	0.2 (3)	0.6 (4)	
630 633	301 - 400 301 - 400	544 2179	332 2067	0.0 (3)	0.1 (3)	
638	301 - 400	2059	2059	1.4 (18) 0.4 (20)		
639	301 - 400	1463	1463	0.4 (20)		
622	401 - 500	632	691	0.7 (4)	0.5 (5)	
627	401 - 500	1184	1255	0.4 (3)	0.4 (8)	
631	401 - 500	1202	1321	0.5 (3)	0.9 (4)	
640	401 - 500	198	69	8.7 (3)	10.1 (3)	
645	401 - 500	204	216	8.2 (3)	7.0 (3)	
641	501 - 750	584	230	12.6 (3)	7.9 (3)	
646	501 - 750	333	325	11.2 (3)	20.1 (3)	
642	751 -1000	931	418	1.3 (3)	0.3 (3)	
647	751 -1000	409	360	1.0 (3)	6.7 (3)	
	Stratified Ana	aiysis:	Upper	1.0	1.2	
			Mean Lower	0.8	0.8 0.4	
	Comrod	ad Suntey Di	omass ('000 tons)		3.2	
01/ 6						
3K A	utumn 1	55 3-159	4 Mean We	eignτ per	tow	

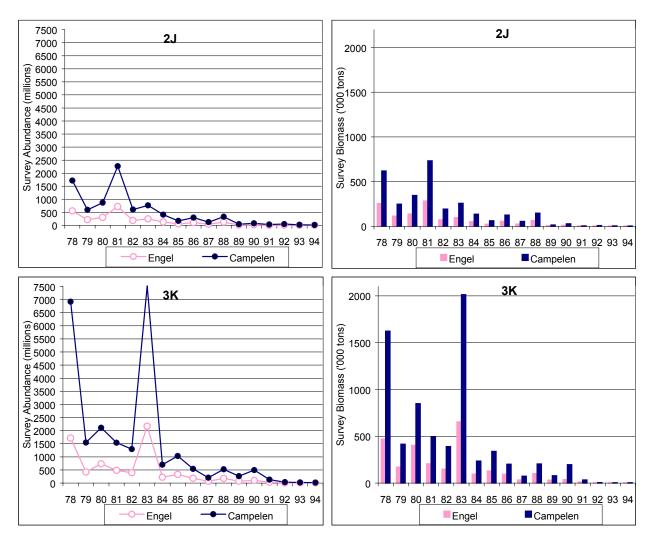


Fig 1. Comparison of survey indices of relative abundance for redfish between the Engels trawl data and values derived as Campelen equivalents based on comparative fishing trials between the MV Gadus Atlantica (Engel trawl, 30 min tows @3.5 knots) and CCGS Teleost (Campelen trawl, 15 min tows @3.0 knots)

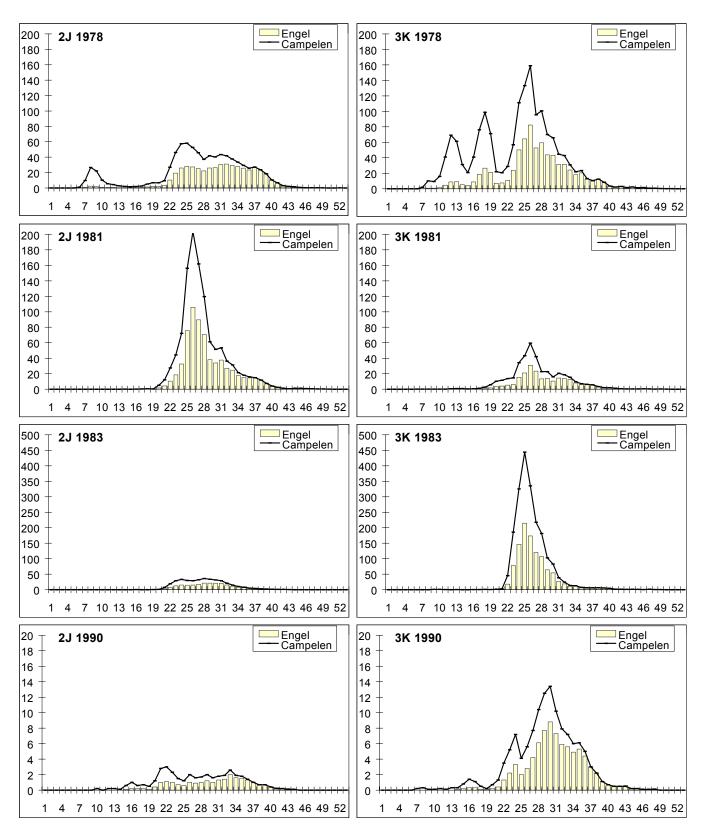


Fig. 2. Length distributions from stratified-random research surveys to Div. 2J (left panels) and Div. 3K (right panels) during various years. Plotted are mean number per standard tow. The bar frequency represents the Engels data and the line represents a conversion into Campelen equivalent units based on a comparative fishing trial (see text)