

FISHERY: RIVER BLACKWATER DIVISION: COLCHESTER AUTHOR: Dr R J BURROUGH

TITLE AND DATE OF SURVEY FISHERIES SURVEYS OF THE RIVERS PART AND BLACKWATER, JUNE - AUGUST 1984 (EDS/85) YEAR OF PREVIOUS SURVEY 1979/80

REASON(S) FOR SURVEY ROUTINE MONITORING

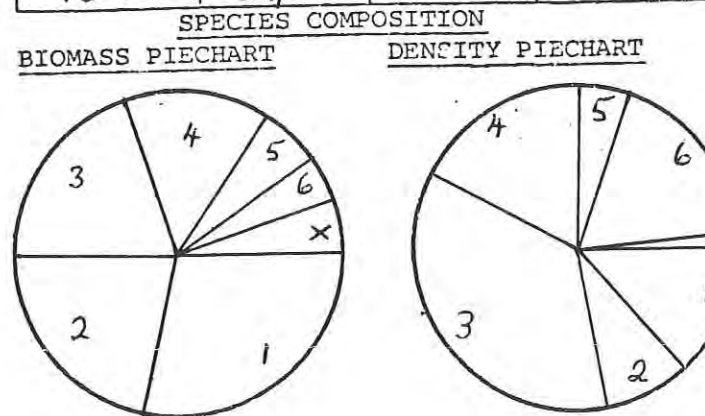
BIOLOGICAL AND CHEMICAL QUALITY NWC 1B; BMWP 88-146; GOOD - VERY GOOD

SAMPLING METHOD(S) PULSED DIRECT CURRENT ELECTRIC FISHING

FISH BIOMASS	MEAN	$> 17.295 \text{ g m}^{-2}$	FISH DENSITY	MEAN	$> 0.158 \text{ m}^{-2}$
	MAX	$> 31.878 \text{ g m}^{-2}$		MAX	$0.338 \text{ m}^{-2}$
	MIN	$4.474 \text{ g m}^{-2}$		MIN	$0.044 \text{ m}^{-2}$

TOTAL NO. OF SAMPLING SITES 20 COMMENTS ON ESTIMATES VERY GOOD STANDARD OF ACCURACY IN MOST CASES FISH HEALTH SAMPLE REF. NO. 84/65

LENGTHS OF RIVER (km) IN EACH BIOMASS CLASS			
A	B	C	D
13.6	24.7	—	—



KEY	SPECIES	PERCENTAGE		NO. OF SITES
		BIOMASS	DENSITY	
1	EEL	28.42	13.43	19
2	CHUB	22.29	8.61	17
3	DACE	19.77	35.67	20
4	ROACH	14.67	17.75	19
5	PERCH	5.75	4.82	16
6	GUDGEON	4.38	18.20	19
X	PIKE	1.65	0.19	2
X	COMMON CARP	1.47	0.07	3
X	TENCH	0.65	0.09	3
X	ROACH x BREAM HYB.	0.23	0.09	4
X	OTHER	0.74	1.08	N/A

YEAR CLASS STRUCTURE AND GROWTH RATES OF IMPORTANT SPECIES

SPECIES	YEAR CLASS										PRE '75	TOTAL	s	GROWTH RATE
	'84	'83	'82	'81	'80	'79	'78	'77	'76	'75				
CHUB	—	46	114*	35	7	5	15	49*	66*	35*	28	400	84.93	M
DACE	1	7	1056*	67	98	88	53	61	34	—	—	1465	67.24	M
ROACH	—	148	350*	79	46	27	42	51	111*	17	3	874	70.14	S/M
BREAM	—	27*	1	—	—	—	—	1	—	—	—	29	—	M

\*DOMINANT YEAR CLASS, s = MEAN ANNUAL SURVIVAL RATE (%)  
 GROWTH KEY: VF = VERY FAST; F = FAST; M = MODERATE; S = SLOW; VS = VERY SLOW

PRINCIPAL CONCLUSIONS AND RECOMMENDATIONS Stocks throughout the river are at least satisfactory, whilst those in the central reaches are good. Density tended to increase in a downstream direction throughout. Dace and perch have increased since the last survey, but roach have declined. These changes were regarded as natural fluctuations only. Data on dace, chub and gudgeon were very similar to those from the lower reaches of the River Brain, the principal tributary (See ED 4/85). No management is required.