

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

TITLE AND DATE OF SURVEY FISHERIES SURVEY OF THE RIVER BRAIN, SEPTEMBER-OCTOBER 1984 (EP 4/85) YEAR OF PREVIOUS SURVEY

REASON(S) FOR SURVEY ROUTINE MONITORING

BIOLOGICAL AND CHEMICAL QUALITY NWC 2; BMW.P 47-77; MODERATE-GOOD.

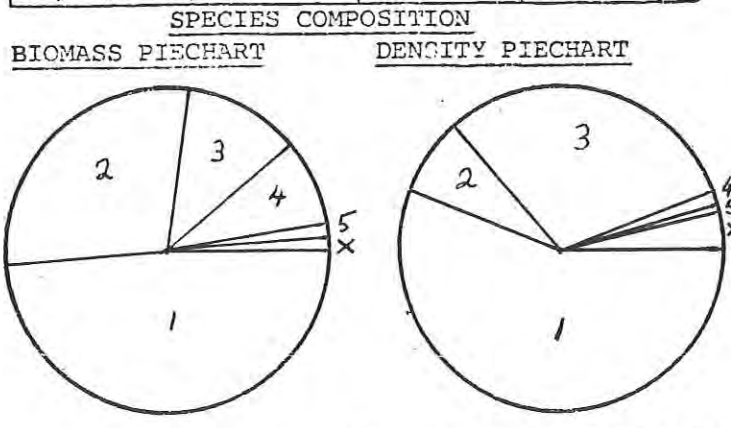
SAMPLING METHOD(S) PULSED DIRECT CURRENT ELECTRIC FISHING

FISH BIOMASS	MEAN	$\geq 12.587 \text{ g m}^{-2}$	FISH DENSITY	MEAN	$\geq 0.206 \text{ m}^{-2}$
	MAX	35.210 g m^{-2}		MAX	0.689 m^{-2}
	MIN	1.159 g m^{-2}		MIN	0.008 m^{-2}

TOTAL NO. OF SAMPLING SITES 7 COMMENTS ON ESTIMATES GOOD STANDARD OF ACCURACY AT ALL BUT ONE SITE FISH HEALTH SAMPLE REF. NO. N/A

LENGTHS OF RIVER(km) IN EACH BIOMASS CLASS			
A	B	C	D
2.2	/	/	8.8

KEY	SPECIES	PERCENTAGE		NO. OF SITES
		BIOMASS	DENSITY	
1	DAKE	49.07	55.80	5
2	CHUB	28.29	7.74	5
3	GLUDGEON	11.61	30.65	7
4	EELS	8.37	1.57	6
5	ROACH	1.52	0.48	3
x	STONELOACH	0.82	3.51	6
x	GOLDENORFEE	0.14	0.06	1
x	PERCH	0.12	0.06	1
x	RUDD	0.05	0.06	1
x	MINNOW	0.02	0.06	2
/	/	/	/	/



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				
DAKE	9	/	751*	27	12	35	10	24	40*	7	2	917	6512	M/F
CHUB	1	67*	75*	4	2	1	4	3	4	17*	6	184	8340	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 *The fish populations were apparently sub-divided by Crithaven flume. Below the flume stocks were very good, whereas those upstream were poor. The extent to which fish move around whole catchment areas and past river structures was highlighted as a matter needing investigation. Improvement of the stocks upstream of Crithaven flume is to be attempted by the introduction of roach to a target of 0.05 fish per m².*