

# SOUTH WEST WATER AUTHORITY

## DART FISHERIES SURVEY 1974



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## DART SURVEY 1974

### INTRODUCTION

The survey was carried out between July and October 1974 to assess the extent of the 0+ and 1+ salmon (Salmo salar L.) parr population in the Dart catchment and thereby to assess directly the success of the 1973/74 and 1972/73 spawning seasons.

The main salmon spawning areas are normally:-

- West Dart - Prince Hall upstream to Wistman's Wood;
- East Dart - Laughter Hole upstream to 1 mile upstream of Postbridge;
- Cowsic - Two Bridges upstream to Beardown;
- Blackbrook - Confluence with West Dart upstream to weir pool in Dartmoor Prison grounds;
- Cherry Brook - Confluence with West Dart upstream to Powder Mills;
- Swincombe - Confluence with West Dart upstream to  $\frac{1}{2}$  mile upstream of water intake.

The Walla Brook and East and West Webburn also provide excellent spawning gravels but these are mainly used by sea trout which spawn throughout the entire Dart catchment.

Redd counts, from field observations for the spawning seasons 1969-74, are given below and a map showing the spawning grounds is given as Figure 1.

TABLE 1 - REDD COUNTS 1969-74

Season	Salmon	Sea Trout
1969/70	200	182
1970/71	147	47
1971/72	182	79
1972/73	96	24
1973/74	394	316

The difficulties in assessing spawning success from redd counts are well known and these data should therefore only be used as general indicators of overall spawning densities. 1973/74 was regarded as a very good spawning season.

### METHODS

Sixty-five sections were examined which were accessible and fishable by electro-fishing methods. Locations of the sections are given in Table 2 and Figure 2.

In order to examine as much of the catchment as possible, small parts of each section were electro-fished and qualitative samples were collected.

#### OBSERVATIONS

The results of the survey are summarised in Tables 3 - 6.

#### SUMMARY

Intakes on the Blackbrook, Cowsic and West Dart supply water to the Devonport Leat. Large numbers of salmon parr were found in the Blackbrook and West Dart but salmon parr were absent from the Cowsic. At the time of surveying, the water level in the middle and lower reaches of the Cowsic was noticeably lower than in the other Dartmoor streams. Salmon have been observed spawning in this river, but obviously the low flows caused by the abstraction upstream do not encourage the parr to remain in the lower reaches. No salmon parr were found in the leat itself, although trout were present.

The survey showed that there were large numbers of 0+ and 1+ salmon parr distributed throughout the upper reaches of the Dart. These large numbers of parr reflect the successful spawning of the 1972/73 and 1973/74 seasons.

TABLE 2 - SURVEY SECTIONS

No.	Name	Grid Reference
1	Fice's Well	SX 579758
2	Upstream of unnamed tributary	SX 582754
3	A.384 road bridge	SX 588750
4	Cairns Bridge	SX 595742
5	Holming Beam	SX 594772
6	Upstream of Devonport leat intake	SX 595768
7	Downstream of Devonport leat intake	SX 596762
8	Beardown Farm	SX 602753
9	Higher White Tor	SX 625789
10	1 mile upstream of Powder Mills	SX 628780
11	$\frac{1}{2}$ mile upstream of Powder Mills	SX 628775
12	B.3212 road bridge	SX 634769
13	Lower Cherrybrook Bridge	SX 632747
14	Upstream of Strane confluence	SX 624707
15	Whiteworks	SX 619709
16	Downstream of Strane confluence	SX 627712
17	Upstream of Devonport leat intake	SX 632716
18	Swincombe Farm	SX 642725
19	Sherberton Farm	SX 647731
20	Crow Tor: $\frac{1}{4}$ mile upstream of Devonport leat intake	SX606783
21	Langford Tor: 10 yds upstream of Devonport leat intake	SX 609780
22	Wistman's Wood	SX 612771
23	Crockern Tor	SX 609757
24	Two Bridges	SX 608749
25	Prince Hall	SX 627739
26	Swincombe Foot	SX 648736
27	Huccaby	SX 659728
28	Beardown Tor: downstream of intake on West Dart	SX 604756
29	Beardown Hill: downstream of intake on West Dart	SX 604756
30	Holmong Beam: downstream of intake on Cowsic	SX 595777
31	B.3212 road: downstream of intake on Cowsic	SX 600744
32	Tor Royal: downstream of intake on Blackbrook	SX 600732
33	Whiteworks: downstream of intake on Blackbrook	SX 609708
34	Ringhill	SX 648794
35	Dury Farm	SX 662730
36	Bellever: upstream of E. Dart confluence	SX 659774
37	Stats Bridge	SX 668805
38	Pizwell	SX 669787
39	Runnage	SX 670777
40	Sherril	SX 672751
41	Hartland Tor	SX 639800
42	Hartland Tor	SX 640798
43	Postbridge	SX 648789

TABLE 2 - CONTINUED

No.	Name	Grid Reference
44	Bellever	SX 658773
45	Laughter Hole	SX 661760
46	Badger's Holt	SX 672736
47	Grendon Bridge	SX 688785
48	Cater Court Bridge	SX 690765
49	Shallowford Bridge	SX 692755
50	Ponsworthy	SX 701738
51	Pitton	SX 722787
52	Bagpark Bridge	SX 721778
53	Widecombe Bridge	SX 721768
54	Cockingford Bridge	SX 718751
55	Lower Lodge Bridge	SX 719720
56	New Bridge	SX 712709
57	Holne Bridge	SX 730706
58	Queen of the Dart	SX 733692
59	Hawson Court	SX 721682
60	Rew	SX 758709
61	Pridhamsleigh Bridge	SX 748677
62	Bilberry Hill	SX 728666
63	Littlehempston	SX 814628
64	Yeo Bridge	SX 758595
65	Crowdy Mill	SX 792560

TABLE 3 - TRIBUTARIES OF WEST DART

Name of Section	O+ Salmon Parr	1+ Salmon Parr	Remarks
<u>Blackbrook</u> Fice's Well Upstream of unnamed tributary A.384 road bridge Cairns Bridge	None found None found Present Present	None found Present (1 only) Present Present	Good numbers of O+ and 1+ salmon parr at A.384 road bridge and Cairns Bridge. Ready to feed salmon fry were planted in the Blackbrook on 25.4.73.
<u>Cowsic</u> Holming Beam Upstream of Devonport leat intake Downstream of Devonport leat intake Beardown Farm	None found None found None found None found	None found None found None found None found	No salmon parr were found in any of the sections which were surveyed.
<u>Cherry Brook</u> Higher White Tor 1 mile upstream of Powder mills 1/2 mile upstream of Powder mills B.3212 road bridge Lower Cherrybrook bridge	Present (1 only) None found Present Present Present	None found Present Present (1 only) Present Present	Only small numbers of O+ and 1+ salmon parr present in the upper sections. The two lower sections had good numbers of O+ and 1+ salmon parr present.
<u>Swincombe</u> Upstream of Strane confluence Whiteworks Downstream of Strane confluence Upstream of Devonport leat intake Swincombe Farm Sherberton Farm	None found None found None found Present Present Present	None found None found None found Present Present Present	No salmon parr were found in the upper sections. Good populations of O+ and 1+ salmon parr were present in the three lower sections. 26,100 eyed ova were planted in the Swincombe on 6.3.74.

TABLE 4 - WEST DART AND DEVONPORT LEAT

Name of Section	0+ Salmon Parr	1+ Salmon Parr	Remarks
<u>West Dart</u> Crow Tor Langford Tor Wistman's Wood Crockern Tor Two Bridges Prince Hall Swincombe Foot Huccaby	None found None found None found None found None found Present Present Present	None found None found None found None found None found Present Present Present	Salmon parr were found in the three lower sections only, Prince Hall yielded good numbers of 0+ and 1+ salmon parr. Huccaby produced a very large population of 0+ salmon parr and a good number of 1+ salmon parr.
<u>Devonport Leat</u> Beardown Tor Beardown Hill Holming Beam B.3212 road Tor Royal Whiteworks	None found None found None found None found None found None found	None found None found None found None found None found None found	Very little water was present in the first two sections. Small numbers of trout were found in all sections.

TABLE 5 - EAST DART AND TRIBUTARIES

Name of Section	O+ Salmon Parr	1+ Salmon Parr	Remarks
<u>Stannon Brook</u> Ringhill	Present	Present	Large numbers of 1+ salmon parr present. 10,000 O+ salmon parr planted in the Stannon Brook on 26.4.73 and 3,500 1+ salmon parr planted on 6.3.74.
<u>Dury Brook</u> Dury Farm Bellever	Present Present	Present Present	Very large numbers of 1+ salmon parr were found at Bellever. 20,000 O+ salmon parr were planted in the Dury Brook on 3.5.73 and 4,000 1+ salmon parr were planted on 6.3.74.
<u>Walla Brook</u> Stats Bridge Pizwell Runnage Sherril	Present Present Present None found	Present Present Present None found	Good populations of O+ and 1+ salmon parr were found throughout the middle and upper reaches. Large numbers of O+ salmon parr were present at Pizwell. 26,500 O+ salmon parr were planted in the Walla Brook on 4.7.73. 33,900 ready to feed fry were planted on 25.4.74.
<u>East Dart</u> Hartland Tor Hartland Tor Postbridge Bellever Laughter Hole Badger's Holt	None found None found Present Present None found Present	None found None found Present Present Present Present	No salmon parr were found at Hartland Tor, but Postbridge and Bellever both produced large numbers of O+ and 1+ salmon parr.



TABLE 6 - DART AND TRIBUTARIES D/S OF DARTMEET

Name of Section	0+ Salmon Parr	1+ Salmon Parr	Remarks
<u>West Webburn</u> Grendon Bridge Cator Court Bridge Shallowford Bridge Ponsworthy	Present Present Present Present	Present Present Present Present	Shallowford Bridge yielded large numbers of 0+ and 1+ salmon parr. Good populations of 0+ and 1+ salmon parr were found in all of the other sections.
<u>East Webburn</u> Pitton Bagpark Bridge Widecombe Bridge Cockingford Bridge	None found Present (1 only) Present Present	Present Present Present Present	Small numbers of 1+ salmon parr were present in the upper sections, but good 0+ and 1+ salmon parr populations were found at Widecombe and Cockingford Bridge.
<u>Webburn</u> Lower Lodge Bridge	None found	Present	A good 1+ salmon parr population was present.
<u>Dart</u> New Bridge Holne Bridge Queen of the Dart	Present Present Present	Present Present Present	0+ and 1+ salmon parr were present in good numbers.
<u>Holy Brook</u> Hawson Court	None found	Present	A good 1+ salmon parr population was present.

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1

TABLE 6 - CONTINUED

Name of Section	0+ Salmon Parr	1+ Salmon Parr	Remarks
<u>Ashburn Yeo</u> Rew Pridhamsleigh Bridge	None found None found	None found None found	The Yeo was diverted in its lower reaches because of road works. It is now impassable to salmon.
<u>Mardle</u> Bilberry Hill	None found	None found	
<u>Hems</u> Littlehempston	None found	Present (1 only)	
<u>Harbourne</u> Yeo Bridge Crowdy Mill	None found None found	None found Present (1 only)	

Fig.1 MAP OF RIVER DART SHOWING SPAWNING GROUNDS

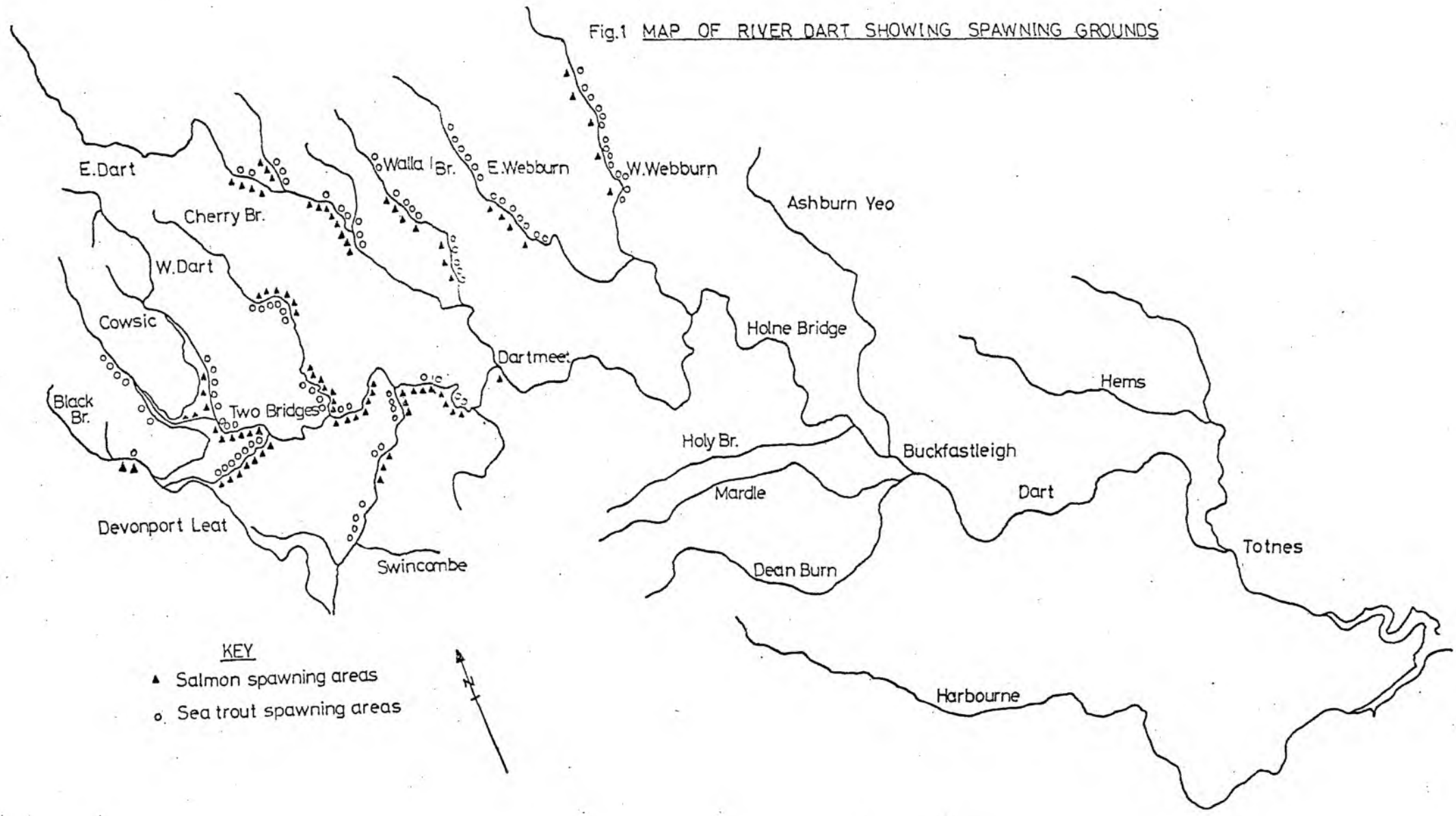
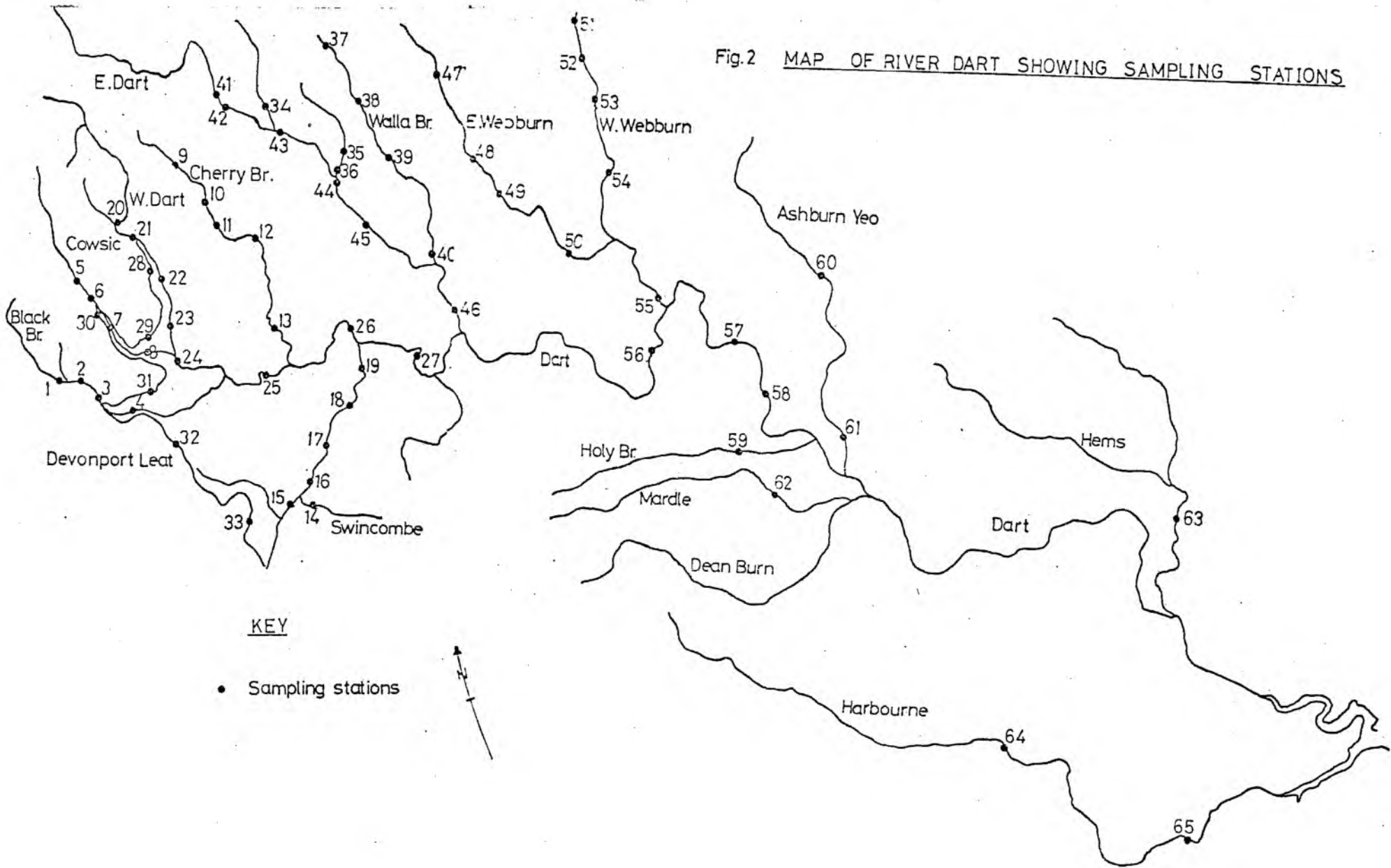


Fig.2 MAP OF RIVER DART SHOWING SAMPLING STATIONS



KEY

• Sampling stations