

# Tweed Trout & Grayling Initiative Management Plan

<b>POLICY</b>	<b>PRESCRIPTIONS</b>	<b>ACTIONS</b>	<b>DELIVERY MECHANISMS</b>	<b>OUTPUT</b>	<b>LABOUR</b>
A: Assess Association areas for fishability and fishing pressure & club membership's profile, concerns & wishes	A1 : Mark on large scale map the areas actually fished by members ( at AGM's or special meetings)	A1a: Define why unused areas are so : Access difficulties, lack of lies / deep water for fish etc.	A1-1 : Training by WTT in fishery enhancement techniques	A1-a: Trained personnel in each Association who can identify problems and implement solutions in fishing areas	"Fishability Convenor" in each Association to organise survey and mapping
		A1b : Quantify each Association's fishable bank length as proportion of their whole	A1-2 : Action plan to improve access to riverbanks / provide nearer parking spaces	A1-b: Better fishing through improved access and quality of fishing area, and reduction in pressure on over-used areas	Trained labour to cut trees, improve/ make paths, create instream lies etc.
		A1c: Assess for areas that could be opened to disabled / elderly anglers with access improvements	A1-3 : Action plan to improve fishability, removal of overhanging branches etc.		
			A1-4 : Action plan for construction of bankside / instream lies for trout, where cover lacking so no catchable fish reside.		
	A2: Define the extent of problems caused to fishing areas by gravel deposition and map areas of active erosion that are producing gravel by undertaking surveys of main channels and tributaries	A2a: Mark on large scale maps areas where members can recall pools that have since become filled in with gravel & collect any photographic or other evidence of this. Re-take old photos from same positions for comparison	A2-1 : Set up gravel monitoring sites where amount of gravel being deposited can be quantified annually e.g. on depth gauges	A2-a : Data on gravel deposition as basis for input to local government / Catchment Management Plan	Personnel run gravel monitoring sites and records
		A2b: Set up "Standard Photo" locations from bridges etc. where photos can be taken regularly to show if any changes in river shape and form	A2-2: Set up photographic monitoring sites to record gravel movements	A2-b: Photographic/ video record of the Association's fishing area, to be a baseline for the future	Personnel to take photos
		A2c: Mark on large scale maps the sources of gravel entering the river - eroding banks, scars etc. (In tributary streams as well as the main channels)	A2-3 : Action plans to fence areas of accelerated erosion.	A2-c : Reduced gravel input into river system	
	A3: Survey Association memberships for opinions on fishing, changes noted, methods used, expectations, satisfactions & wishes & social profile	A3a: Draw up a questionnaire & analyse results. Could be sent postally or distributed at AGM's		A3-a: Report on attitudes of Tweed trout and Grayling anglers, usage they make of the river, their background and what they think of the fishing at present and what they would like it to be in the future	
B: Assess Association fish nursery areas for juveniles and upland waters for adult / catchable sized trout	B1: WTT to undertake Advisory Visits and train personnel in each Association by surveying a burn in their area. They will then walk the other burns in their area, using standard recording sheets and maps and taking video & stills	B1a: Association surveyors will meet with WTT expert who will analysis their records and pictures and work out action plans for each burn with them.	B1-1: WTT Open Days to demonstrate habitat improvement techniques and provide training.	B1-a : Trained personnel in each Association who can identify problems and implement solutions in trout nursery areas	Habitat surveyors

		B1.2 : Compare new and old (TF) habitat survey data to show if problems have been increasing or decreasing (by the TF)	B1-2 : Trained personnel in each Association who can identify problems and implement solutions.	B1-b : Increased quantity and improved quality of trout spawning habitat	
			B1-3 : Action plans to remove obstacles and improve habitat quality in the nursery streams of each Association's area.	B1-c : Quantification of trout spawning area in each Association's sector	
	B2: Undertake electro-fishing of the major spawning burns of each Association's area, partly on basis of habitat surveys to check areas identified as poor, but also general survey to confirm use as spawning area. Previously surveyed Tweed Foundation sites to be re-sampled	B2a: Undertake electric-fishing of nursery streams	B2-1 : Association personnel to take first level SFCC electric-fishing training course to assist TF electric-fishers		Association personnel for training as electric-fishing assistants.
		B2b: Check electric-fishing data against habitat data to confirm identification of problem areas and obstacles.			
		B2c : Compare data with previous TF data where this exists, to identify trends. (by the TF)			
	B3: Electric-fish deeper areas of upland waters to assess stocks of adult/catchable sized trout that could be fished for : <i>NOTE - Upland waters were extensively fished in the past, according to older guidebooks, but are not now.</i>	B3a: Have Association members survey upland waters in their areas for stretches of deeper water / cover where larger trout would find suitable habitat.	Areas suitable for adult trout would be marked on maps, with locations recording using GPS units		Association members to walk upland waters in their areas and record areas of suitable habitat for larger trout
		B3b: Electric-fish the deeper areas identified from surveys, to assess catchable trout populations ( <i>these would be combined with the juvenile surveys in many cases</i> )		B3-a : Quantification of upland trout fishing resource for possible use, either local & social (if found not to be strong) or for wider marketing if assessment shows that the resource could sustain such pressure.	Association members to assist in electric-fishing areas identified as suitable for larger trout.
C: Assess and monitor the river fly life of each Association's area	C1: Train personnel in each Association in fly identification and in sampling techniques.	C1a : Setting up of sampling sites and programme of sampling to monitor trends over time	C1-1 : Train personnel in each Association to take samples	C1-a : Trained personnel in each Association who can monitor fly life and keep members informed of status of their areas	Trainers to train in fly ID
			C1-2 : "Fly Life" days at TF offices, when samples brought in from all the Associations for analyses	C1-b : Identification of problem areas requiring action by government Agencies	Personnel to train in fly ID and to take regular samples
			C1-3 : Report problem areas to SEPA		
	C2: Train Association personnel in analysis of stomach contents and "spooning" of stomach	C2a : Monitor Trout and Grayling diets across the seasons and the years: Assess relative importance			

	contents from live fish (would include training in identification of terrestrial invertebrates)	of surface and bottom feeding			
D: Assess the Trout and Grayling catches of each Associations's areas	D.1: Recruit season ticket holders to keep SFCC fish catch Logbooks and run bankside Creel Surveys, when members will interview anglers on the banks to record their catches.	D1a: Data from Logbooks to be entered into SFCC Catch Database for analyses (by the TF, initially)	D1-1 : Changes to Association fishing regulations (bag & size limits, methods etc) as a result of information from analyses of size and numbers of fish caught.	D1-a: Annual Report on Trout and Grayling catches for each Association's area and for the Tweed as a whole, making anglers better informed about the state of the fishery	Personnel to keep logbooks
		D1b: Identify trends in catches over time and of differences in fishing quality between areas, both of which will highlight problems. (by the TF)		D1-b: Better Trout and Grayling fishing as a result of better fishing regulations	Personnel to carry out Creel Surveys
	D.2: Selected logbook holders to be trained to take scales from living trout.	D.2: Work out ages of trout being exploited, to see if pressure is falling on older or younger fish and whether catches are over or underexploiting the population	D2-1 Scale reading days for the trained scale-takers to bring their samples in to the TF to read them (with help from the TF)	D2-a: Knowledge of the age structure of the trout populations being exploited, an important guide to their status.and a source of guidance for the setting of angling regulations	Personnel to run SFCC Catch Database
	D.3: Training to be given in identification of sexes of immature Trout and Grayling to improve quality of data recorded in logbooks.	D:3 Establish sex ratios of the fish being exploited by anglers.	D3: Train in sex identification along with scale training : A leaflet would be produced as a guide to both scale-taking and sex identification.	D3-a: Knowledge of the gender structure of the trout populations being exploited, an important guide to their status.and a source of guidance for the setting of angling regulations	Personnel to train in scale taking
E : Assess the Brown-trout breeding stocks of each area	E1: Build traps in at least one spawning burn in each Association's area, to monitor and identify spawning run.	E1a : Identify spawning trout as Sea or Brown-trout from scales. If many burns have Sea-trout spawning populations, it would show that the production base to Brown-trout in the Tweed catchment was not as strong as might be supposed from the number of burns	E1-1 : Changes to Association bag & size limits, and methods if results from traps show exploitation rate of breeding stock should be reduced ( If a Club's area was divided into "All Legal Methods" and "Fly Only" zones and good records of catches in each zone)	E1-a : Better Trout fishing as a result of better fishing regulations and increased breeding stock of Brown-trout	Personnel to train in scale taking / reading
	E2: Standardise recording of catches at trout fishing competitions	E2a: Calculate catch rates and compare with historic rates where available. (by the TF)	E1-2 : If breeding size Brown-trout were found to be uncommon in trapped populations, "Trophy - fishing" areas could be designated in which only Brown-trout over a maximum size could be killed - the limit would be worked out from the trap data (by the TF)		Labour to build and run traps. Those running the traps would need training in the handling of fish. Also trap design experts needed
		E2b: Compare age structure from scale samples with any historic data (by the TF)			
F: Assess the Grayling stocks of each area	F1 : Locate and map Grayling spawning areas (link to TF surveys to find juvenile Grayling habitats as part of deeper water habitats survey)	F1a : Association members to walk main channels and larger tributaries in the first week of April to check all tails of pools in their areas for spawning Grayling (easily noticeable)	F1-1: Index of extent of Grayling spawning will allow evaluation of stock strength	F1-a: Map of Grayling spawning areas	Personnel to survey the rivers in Spring
	F2: Angling competitions for	F2a: Catch rates to be calculated	F2-1: Monitoring of catch rates and	F2-a: Better Grayling fishing	Organisers for

	Grayling to be held in each Association's - or group of associations - area and recorded in a standard format	from competition data (by the TF)	sizes of fish will allow better regulation of bag & size limits, methods etc.		competitions, anglers to take part in them
		F2b: Lengths of all Grayling to be measured and a sample held in keep nets for tagging . (by the TF)	F2-2: Recaptures of tagged Grayling will show if populations are localised, and so vulnerable to local over-fishing, or mobile and so able to avoid over-fishing in any one area		Personnel (TF) to tag Grayling
		F2c: Assessments of recruitment to be made from numbers of younger Grayling caught and reasons for fluctuation to be identified ( by the TF)			
G: Assess levels of trout and Grayling predators	G1: Association members to take part in the regular Goosander and Cormorant counts in their areas	G1a: Identify areas where predators common	G2-1: Train Association members in bird ID and counting technique	G1-a: Better assessment of predation pressures	Personnel to be trained and take part in surveys
H: Improve local knowledge of the Trout and Grayling resource, their histories & the work of this project	H1: Produce reports on the history of Trout and Grayling fishing in the Tweed Catchment.	H1a: Collate and analyse information from Association competition records, angling diaries and published books.		H1: Reports on history of Tweed Trout and Tweed Grayling fisheries.	
	H2: Set up a website on which progress reports, calls for volunteers and results can be posted. A "Newspaper" version would also be needed for those not online		H2-1: Produce and maintain website, with links to the TF, FishTweed etc. websites	H2: Website	
			H2-2: Produce project Newspaper ( quarterly ?, six-monthly ? ) & distribute through clubs. If possible, set up a central database of Association member's addresses, so can distribute directly	H2: Newspaper	
	H3: Give Winter lectures, open to all, on the natural history of the fish and the river		H3-1: Give presentations (PowerPoint), well advertised in local press etc.		