


Site name	Date (dd.mm.yyyy) Start (hh:mm) End (hh:mm)	Sample code	Investigator	PAGE 1 Version 2006-02-15	
			Indicate No. of photos taken on page 2 !		

Meta data (maps, GIS, other sources)

1 country		2 federal state (state, province, district, nearest village)	
3 river name		4 terrestrial ecoregion name and code (WWF, e. g.: IM0115)	
5 river system/ subsystem (river flowing into the sea)		6 catchment area [km ²] (at sampling site!)	
7 map code	8 stream order (Strahler system)	9 distance to source [km] (derived from map 1 : 50000 or larger)	
10 longitude [decimal degree]	11 latitude [decimal degree]	12 altitude [m] a. s. l. (method: Map, GPS, etc.)	






Common catchment characteristics (maps, GIS, other sources)

13 catchment geology (10 % steps, rounded to the nearest 10 %)			14 Geological typology	
<input type="checkbox"/> acid silicate rocks	<input type="checkbox"/> alluvial deposits	<input type="checkbox"/> sander		
<input type="checkbox"/> mafic silicate rocks	<input type="checkbox"/> flysch & molasse	<input type="checkbox"/> marine deposits	siliceous	<input type="checkbox"/>
<input type="checkbox"/> carbonate rocks	<input type="checkbox"/> lacustrine deposits	<input type="checkbox"/> loess	calcareous	<input type="checkbox"/>
<input type="checkbox"/> organic formations	<input type="checkbox"/> moraines	sum 100 %!	organic	<input type="checkbox"/>
15 catchment land use (10 % steps, rounded to the nearest 10 %)				
<input type="checkbox"/> deciduous native forest	<input type="checkbox"/> naturally unvegetated	<input type="checkbox"/> pasture	<input type="checkbox"/> others: _____	
<input type="checkbox"/> coniferous native forest	<input type="checkbox"/> alpine heath	<input type="checkbox"/> partial cutting		
<input type="checkbox"/> mixed native forest	<input type="checkbox"/> standing waters	<input type="checkbox"/> clear-cutting		
<input type="checkbox"/> silviculture	<input type="checkbox"/> non-native forest	<input type="checkbox"/> villages		
<input type="checkbox"/> wetland (mire, reeds)	<input type="checkbox"/> terraces (hilly region)	<input type="checkbox"/> urban sites (resid.)		
<input type="checkbox"/> open grass-/bushland (natural)	<input type="checkbox"/> crop land (tillage, lowland)	<input type="checkbox"/> urban sites (industrial)	sum 100 %	
<input type="checkbox"/> meadows				




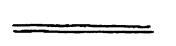
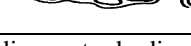
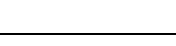
Common hydrological characteristics (maps, GIS, other sources)


16 mean annual discharge (MQ) [l/s]	17 mean annual low discharge (MNQ) [l/s]	18 Highest annual discharge (HQ1) [l/s]:
19 hydrological classification		20 feeding system
<input type="checkbox"/> periodic (regularly): __ summer-dry __ winter-dry		spring fed <input type="checkbox"/> snow fed <input type="checkbox"/> glacier fed <input type="checkbox"/>
<input type="checkbox"/> episodic (non predictable) <input type="checkbox"/> permanent <input type="checkbox"/> tidal influence (____%)		rain fed (Monsoon) <input type="checkbox"/>

Reach characteristics, approximately 10 km of river length (maps, GIS, other sources)

21 lakes/reservoirs in the stream continuum upstream of sampling site <input type="checkbox"/> yes <input type="checkbox"/> no	22 width of the floodplain [m]	23 valley slope [%!]
24 slope of river course (thalweg) [%!]	25 valley shape	<input type="checkbox"/> meander valley
	<input type="checkbox"/> canyon 	<input type="checkbox"/> U-shaped valley 
	<input type="checkbox"/> V-shaped 	<input type="checkbox"/> plain floodplain 
	<input type="checkbox"/> trough 	<input type="checkbox"/> other (specify) _____

Reach characteristics, approximately 1 km of river length (maps, GIS, possibly recorded in the field)

26 floodplain land use (10 % steps, rounded to the nearest 10 %)		
<input type="checkbox"/> deciduous native forest	<input type="checkbox"/> naturally unvegetated	<input type="checkbox"/> partial cutting
<input type="checkbox"/> coniferous native forest	<input type="checkbox"/> alpine heath	<input type="checkbox"/> clear-cutting
<input type="checkbox"/> mixed native forest	<input type="checkbox"/> standing waters	<input type="checkbox"/> villages
<input type="checkbox"/> silviculture	<input type="checkbox"/> non-native forests	<input type="checkbox"/> urban sites (resid.)
<input type="checkbox"/> wetland (mire, reeds)	<input type="checkbox"/> terraces (hilly region)	<input type="checkbox"/> urban sites (industrial)
<input type="checkbox"/> open grass-/bushland (natural)	<input type="checkbox"/> crop land (tillage, lowland)	<input type="checkbox"/> others: _____
<input type="checkbox"/> meadows	<input type="checkbox"/> pasture	sum 100 %
27 channel form		
<input type="checkbox"/> meandering 	<input type="checkbox"/> sinuate	
<input type="checkbox"/> braided 	<input type="checkbox"/> constrained (natural)	
<input type="checkbox"/> anabranching 	<input type="checkbox"/> constrained (artificial)	
28 number of standing water bodies in the floodplain		
_____ side arms fully connected to the river	_____ small pond	
_____ side arms partly connected to the river	_____ flood channels (e. g., bayous)	
	_____ other types (please specify) _____	
	_____ no standing water bodies present	

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	End (hh:mm)		No. photos taken: _____		

Morphological characterisation at sampling site (field record)

29 mean depth at bankfull discharge (when river reaches its banks and enters the floodplain) [cm]		
30 shading at zenith (at noon) (% foliage cover) <input type="checkbox"/> 0 <input type="checkbox"/> 20 <input type="checkbox"/> 40 <input type="checkbox"/> 60 <input type="checkbox"/> 80 <input type="checkbox"/> 100	31 width of wooded riparian vegetation [m] (average right and left)	32 removal of mineral bed material <input type="checkbox"/> yes <input type="checkbox"/> no
33 number of debris dams (wood and POM accumulations > 0.3 m ³)		34 number of logs (> 10 cm diameter at largest part)
35 average density of wooded riparian vegetation [%] (mean value left and right together) (none-----isolated/scattered-----regularly spaced/occasional clumps-----semi-continuous-----continuous) <input type="checkbox"/> 0 <input type="checkbox"/> 10 <input type="checkbox"/> 20 <input type="checkbox"/> 30 <input type="checkbox"/> 40 <input type="checkbox"/> 50 <input type="checkbox"/> 60 <input type="checkbox"/> 70 <input type="checkbox"/> 80 <input type="checkbox"/> 90 <input type="checkbox"/> 100		


Hydro-morphological impact at sampling site (field records)

36 dams at sampling site number _____ cumulative height _____ [cm] max. height _____ [cm]	37 other transverse structures (e. g., bridges, sediment barriers) number _____ cumulative height _____ [cm] max. height _____ [cm]
38 proportion of bank fixation (10 % steps , rounded to the nearest 10 %)	
<u>left</u>	<u>right</u>
_____ concrete without seams	_____ concrete without seams
_____ concrete with seams	_____ concrete with seams
_____ stones	_____ stones
_____ wood	_____ wood
_____ trees (e. g., Alder, Willow)	_____ trees (e. g., Alder, Willow)
	_____ stone plastering with interstices
	_____ stone plastering without interstices
	_____ other materials (specify: _____)
	_____ no bank fixation
	sum 100 %
	sum 100 %
39 proportion of bed fixation (10 % steps , rounded to the nearest 10 %)	
_____ concrete without seams	_____ concrete without seams
_____ concrete with seams	_____ concrete with seams
_____ stones	_____ stones
_____ wood	_____ wood
_____ trees	_____ trees
	_____ stone plastering with interstices
	_____ stone plastering without interstices
	_____ other materials (specify: _____)
	_____ no bed fixation
	sum 100 %

40 stagnation <input type="checkbox"/> yes <input type="checkbox"/> no	41 torrent modification <input type="checkbox"/> yes <input type="checkbox"/> no	42 channeling for navigation <input type="checkbox"/> yes <input type="checkbox"/> no	43 straightening <input type="checkbox"/> yes <input type="checkbox"/> no
44 removal of coarse woody debris <input type="checkbox"/> yes <input type="checkbox"/> no	45 cut-off meanders <input type="checkbox"/> yes <input type="checkbox"/> no	46 scouring [m] below surface <input type="checkbox"/> yes [___m] <input type="checkbox"/> no	47 culverting <input type="checkbox"/> yes <input type="checkbox"/> no
48 water abstraction with pulse releases <input type="checkbox"/> yes <input type="checkbox"/> no	49 residual flow (proportion of natural discharge) [%]	50 purpose of water abstraction <input type="checkbox"/> irrigation <input type="checkbox"/> hydropower <input type="checkbox"/> others (specify: _____)	
51 longitudinal impoundments at sampling site (e. g., dams, dikes) <input type="checkbox"/> yes <input type="checkbox"/> no	52 removal/lack of natural floodplain vegetation <input type="checkbox"/> yes <input type="checkbox"/> no	53 non-native wooded riparian vegetation <input type="checkbox"/> yes <input type="checkbox"/> no	

Signs of pollution at sampling site (field records)

54 source pollution <input type="checkbox"/> yes <input type="checkbox"/> no	55 non-source pollution <input type="checkbox"/> yes <input type="checkbox"/> no	56 sewage overflows <input type="checkbox"/> yes <input type="checkbox"/> no	57 eutrophication <input type="checkbox"/> yes <input type="checkbox"/> no
58 acidification <input type="checkbox"/> yes <input type="checkbox"/> no	59 liming <input type="checkbox"/> yes <input type="checkbox"/> no	60 mining <input type="checkbox"/> yes <input type="checkbox"/> no	61 toxic substances <input type="checkbox"/> yes <input type="checkbox"/> no

Site name (nearest City)	Date (dd.mm.yyyy) Start (hh:mm) End (hh:mm)	Sample code	Investigator	PAGE 3 Version 2006-02-15 Indicate No. of photos taken on page 2 !	
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Morphometric and hydrological characteristics at sampling site (field record)

62 stream width [m] minimum: _____ maximum: _____ average: _____	63 relation riffles/pools	64 estimated discharge [l/s]	65 river bed visible entirely <input type="checkbox"/> partly <input type="checkbox"/> no <input type="checkbox"/>
66 water level at sampling site low <input type="checkbox"/> medium <input type="checkbox"/> high <input type="checkbox"/> artificial <input type="checkbox"/>	67 water uses (multiple entries possible) burial site <input type="checkbox"/> hydropower <input type="checkbox"/> fisheries <input type="checkbox"/> cooling agent <input type="checkbox"/> water sports, recreation <input type="checkbox"/> industrial <input type="checkbox"/> drinking water recovery <input type="checkbox"/> cattle watering place <input type="checkbox"/> others (specify _____) <input type="checkbox"/>		68 bank structure L R flat (< 30°) <input type="checkbox"/> <input type="checkbox"/> slanting <input type="checkbox"/> <input type="checkbox"/> steep (> 45°) <input type="checkbox"/> <input type="checkbox"/> embanked <input type="checkbox"/> <input type="checkbox"/>
69 flow type at site (multiple entries possible) pool <input type="checkbox"/> run <input type="checkbox"/> slack <input type="checkbox"/> rapid <input type="checkbox"/> riffle <input type="checkbox"/> waterfall <input type="checkbox"/>		70 waste disposal rubbish <input type="checkbox"/> industrial waste <input type="checkbox"/> building material <input type="checkbox"/> washing/bathing <input type="checkbox"/> faeces <input type="checkbox"/> others (specify _____) <input type="checkbox"/> slaughter waste <input type="checkbox"/> no waste disposal <input type="checkbox"/>	

Physical characteristics and measurements at sampling site (field record)

71 water colour (use white bucket or tray to aid proper judgement) <input type="checkbox"/> colourless <input type="checkbox"/> colour specify: _____	72 odours <input type="checkbox"/> yes <input type="checkbox"/> no specify (e. g., muddy): _____	73 foam <input type="checkbox"/> yes <input type="checkbox"/> no	74 pH	75 conductivity [μ S/cm]
76 reduction phenomena (ferrosulfides below stones) <input type="checkbox"/> yes <input type="checkbox"/> no	77 turbidity <input type="checkbox"/> yes <input type="checkbox"/> no	78 oxygen content [mg/l]	79 oxygen saturation [%]	96 temperature: air: water:
80 mean depth [cm]		81 maximum depth [cm]		
82 mean current velocity [cm/s]		83 maximum current velocity [cm/s]	97 minimum current velocity [cm/s]	

Chemistry (indicate: field kit or lab analysis)

84 alkalinity [CO_3^{2-}] [mmol/l] <input type="checkbox"/> F <input type="checkbox"/> L	89 nitrite [mg/l] <input type="checkbox"/> F <input type="checkbox"/> L
85 total hardness [mmol/l] <input type="checkbox"/> F <input type="checkbox"/> L	90 nitrate [mg/l] <input type="checkbox"/> F <input type="checkbox"/> L
86 chloride [mg/l] <input type="checkbox"/> F <input type="checkbox"/> L	91 ortho-phosphate [μ g/l] <input type="checkbox"/> F <input type="checkbox"/> L
87 biological oxygen demand BOD ₅ [mg/l] (lab only!)	92 total phosphate [μ g/l] <input type="checkbox"/> F <input type="checkbox"/> L
88 ammonium [mg/l] <input type="checkbox"/> F <input type="checkbox"/> L	93 E-coli [n/100 ml] <input type="checkbox"/> F <input type="checkbox"/> L

Additional characteristics (optional, but very helpful; use flipside if necessary)

94 comments (e. g., notable observations, rare species, side bars present, mid-channel bars present)

95 sketch of sampling site with location of sampled microhabitats