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PANDA

Permanent network to strengthen expertise on infectious diseases of
aquaculture species and scientific advice to EU policy

Coordination Action

Scientific support to policies

Work Package 2

Risk analysis of exotic, emerging and re-emerging disease hazards

Annex 4: Hazard scoring spreadsheet

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Duration: 44 months

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Dissemination Level		
PU	Public	PU
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

Annex 4 - Hazard scoring spreadsheet

	Pathogen Hazard Score for Risk Assessment	Weight	Score	Uncertainty estimate (UE-1 to 5)	Weighted score	UE score
	PLEASE COMPLETE ONLY THE LIGHT GREEN HIGHLIGHTED AREAS					
	Pathogen name:					
	Assumption: Susceptible host species exist within the EU.					
	Uncertainty estimate (UE): 1= very certain, 2= reasonably certain, 3= reasonably uncertain, 4= very uncertain, 5= no data					
A	Presence or absence of the pathogen in the EU and regulatory status	20%			0	0
1.	Is the pathogen absent from the EU? (yes=1, no=0) (if yes go to qu 3)	50			0	0
2.	If no, is the pathogen of limited distribution in the EU? Note: 'limited distribution' means the potential range has not been reached, it is not limited to its present distribution by climatic conditions or host fish/shellfish distribution and would be capable of additional spread without biosecurity measures. (yes=1, no=0)	25			0	0
3.	Does the pathogen cause a listed OIE and/or EU Directive 91/67 disease? (yes=0, no=1)	25			0	0
B	Pathways of introduction	20%			0	0
4.	Is there trade in live host species (legal or illegal) into the EU from a known positive country? (yes=1, no=0)	50			0	0
5.	Is there trade in products of the host species (legal or illegal) into the EU from a known positive country (yes=1, no=0) (if no go to qu 7)	5			0	0
6.	If yes, has the pathogen been spread by international trade in the products of the susceptible species? (yes=1, no=0)	20			0	0
7.	Is there trade in gametes of the host species (legal or illegal) into the EU from a known positive country? (yes=1, no=0) (if no go to qu 9)	5			0	0

8.	If yes, has the pathogen been spread by international trade in gametes of the host species? (yes=1, no=0)	20			0	0
C	Establishment	20%			0	0
9.	How similar are the climatic conditions that would affect pathogen establishment in the EU compared to the area of current distribution? (not similar = 0; similar = 0.5; very simliar = 1)	20			0	0
10.	How many different host species are present in the EU? (one = 0; one to three = 0.5; more than three = 1)	5			0	0
11.	How extensive (density) are the host fish/shellfish in the EU? (rare = 0; fairly widespread = 0.5; very widespread = 1)	5			0	0
12.	Are the host species farmed and/or wild? (wild only = 0.5; farmed only = 0.5; farmed and wild = 1)	5			0	0
13.	How long will the pathogen live in the environment without a host? (hours = 0; days = 0.5; months = 1)	10			0	0
14.	How likely is the reproductive strategy of the pathogen and duration of life cycle to aid establishment? Note: e.g. pathogenesis, short life cycle, direct life cycle, number of generations per year. (not likely = 0; likely = 0.5; very likely = 1)	15			0	0
15.	How rapidly is the pathogen liable to spread in the EU by natural means? Note: consider wild fish movements, the presence of natural barriers, and water currents. (slowly = 0; moderate = 0.5; rapidly = 1)	15			0	0
16.	How rapidly is the pathogen liable to spread in the EU by human assistance? Note: consider the potential for movement with live fish, contaminated equipment, etc. (very slowly = 0; moderate = 0.5; very rapidly = 1)	5			0	0
17.	How often has the pathogen successfully established new areas outside its original range? (never = 0; occasionally = 0.5; often = 1)	20			0	0
D	Consequence	20%			0	0
18.	Can the pathogen cause environmental harm where it occurs? Note: consider reduction of important species (e.g. endangered); significant reduction of other native species; significant effects on designated environmentally sensitive areas; significant change in ecological processes and structure. (no=0; yes=1)	25			0	0
19.	How important are social and cultural harm caused by the pathogen within its existing geographic range? Note: e.g. damaging the livelihood of a proportion of the human population, affecting human use (e.g. recreational uses, tourism, fishing). (little or no importance = 0; important = 0.5; very important = 1)	10			0	0

20.	How important is economic loss to cultivated fish/shellfish caused by the pathogen within its existing geographic range? Note: consider direct and indirect costs from loss of production and control efforts. (little or no importance = 0; important = 0.5; very important = 1)	10			0	0
21.	How extensive is a region of the EU likely to suffer damage from the pathogen? (limited = 0; extensive = 0.5; very extensive = 1)	25			0	0
22.	How likely is the presence of the pathogen in the EU to affect export markets? Note: consider the extent of any sanitary measures likely to be imposed by trading partners. (not likely = 0; likely = 0.5; very likely = 1)	10			0	0
23.	How important would other costs resulting from introduction be? Note: costs to the government, such as control costs, research, advice, publicity, certification schemes. (little or no importance = 0; important = 0.5; very important = 1)	10			0	0
24.	How likely are possible control/eradication measures to disrupt existing biological systems? (not likely = 0; likely = 0.5; very likely = 1)	10			0	0
E	Risk mitigation	20%			0	0
25.	How likely are existing control or husbandry measures (in cultured/farmed populations) to prevent establishment of the pathogen? (n/a or very likely = 0; likely = 0.5; not likely = 1)	20			0	0
26.	How likely is it that the pathogen could be eradicated from the EU? (very likely = 0; fairly likely = 0.5; not likely = 1)	20			0	0
27.	Is there an active surveillance system for the pathogen within the EU? (yes=0, no=1) (if no go to qu 29)	20			0	0
28.	If yes (qu 27), in how many countries does it happen? (>50% of countries=0.25; <50% of countries= 0.75)	20			0	0
29.	Is there a suitable diagnostic test available? Note: according to the OIE, a diagnostic test should be widely available and preferably have undergone a formal standardisation and validation process using routine field samples. (yes=0, no=1)	20			0	0
Category summary scores						
Pathogen name:						
Risk=%category weight x total category weighted score						
Uncertainty=%category weight x total category UE score						
A. Presence or absence of the pathogen in the EU and regulatory status						

	Risk	0				
	Uncertainty	0				
	B. Pathways of introduction					
	Risk	0				
	Uncertainty	0				
	C. Establishment					
	Risk	0				
	Uncertainty	0				
	D. Consequence					
	Risk	0				
	Uncertainty	0				
	E. Risk mitigation					
	Risk	0				
	Uncertainty	0				
	Total risk score	0				
	Total uncertainty score	0				