

Salmo trutta

()

:(Berg)

Animalia

Chordata

Vertebrata

Osteichthyes

Salmoniformes

Salmonidae

Salmo

Salmo trutta (Linnaeus, 1758)

Salmo trutta caspius (Kessler, 1877)

Salmo trutta caspius (Kessler, 1877)

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(%)

.(www. Caspianenvironment.org)

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- (Kiabi)
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 , ()
 , Laikre , Jug) (Sonstebo
 .(,
 , (Ayllon)
 - ,
 ,RAPD² ,RFLP³ ,AFLP⁴
 DNA (Hutchings Adams)

¹ microsatellite

² Random Amplification Polymorphic DNA

³ Restriction Fragment Length Polymorphism

⁴ Amplified Fragment Length Polymorphism

⁵ Allozyme

.(Rico)

.(Cordes Liu)

()

.(Wenne Was)

()

DNA

()

DNA

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DNA

(

()

DNA

¹-Morphological markers

.() DNA

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)

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DNA

DNA

DNA

mtDNA

AFLP RAPD RFLP

EST⁴ SNP ()

I

.(O'Brien)

II

¹ -Cytogenetical markers

² -Molecular markers

³ Single nucleotide polymorphism

⁴ Expressed sequence tag

()

I

QTL

-

(*Danio rerio*)

II

AFLP

RAPD

Liu)

(Cordes

PIC (PIC²)

:()

() PIC= -

PIC

PIC

PIC

(Botstein)

¹ Quantitative trait loci
² Polymorphic information content

DNA

-

/

()

-

-

(Carvalho) I

DNA²

DNA

DNA () DNA

()

¹-Allozyme, Isozyme
²-DNA markers

DNA

DNA

(. .)

DNA

.() ()

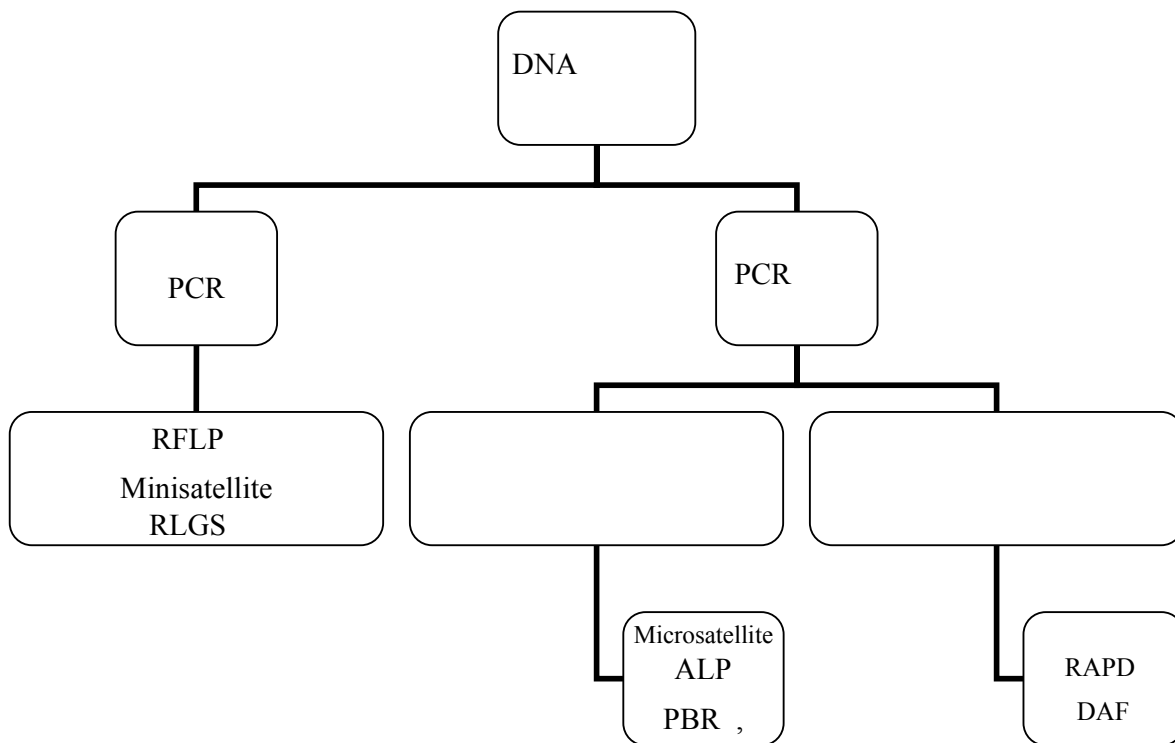
() DNA

(O'Brien)

DNA

()

		I					
							mtDNA
		II I					RFLP
		II					RAPD
		II					AFLP
		II					(SSR)
		I					EST
		II I					SNP



()

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Arbitrarily Primed PCR

Sequence Tagged Sites

Random Amplification Polymorphic DNA

DNA Amplification Fingerprinting

Amplification Length Polymorphism

PCR Based RFLP

Single Strand Conformation Polymorphism

Single Sequence Repeats

Amplified Fragment Length Polymorphism

Single Nucleotide Polymorphism

Restriction Fragment Length Polymorphism

Restriction Landmark Genomic Scanning

Jeffery

()

PIC

(Cordes Liu)

DNA

DNA %

DNA

:

DNA .

DNA

:

DNA .

DNA

()

DNA

()

:

:

:()

.(GTGTGTGTGTGT)

:

.(GTGTCGTGTGT)

:

)

.(GTGTGTCCCGTGTGT

:

.(Hansen) (GTGTGTGCGCGCGC)

:

%

(

Borrel)

.(

-

-

¹ Polymorphism

DNA

(Primmer)

(Talbot)

()

CG

-1

-2

-3

DNA

-4

Wright O'Reilly)

-5

-6

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: (

-

DNA

: (

.(Wright O'Reilly)

-

: (

DNA

: (

(Hansen)

DNA

¹ Flanking
² Homoplasy

.(Cordes Liu)

DNA

Ciftci)

.(Okumus

¹ Genetic population

)

(

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)

.(

.()

.(Whitmore)

% .(Chakaborty)

¹ Population

² Population Structure

³ Genetic differentiation

(Neigel)

(Nei)

()

¹ Genetic Distance
² Genetic variation

Ferguson)

(

(H)

(H_{obs})

()

() H_{exp} = 1 - Σ P_i²

(Nei)

k i ,P_i

¹ Heterozygosity