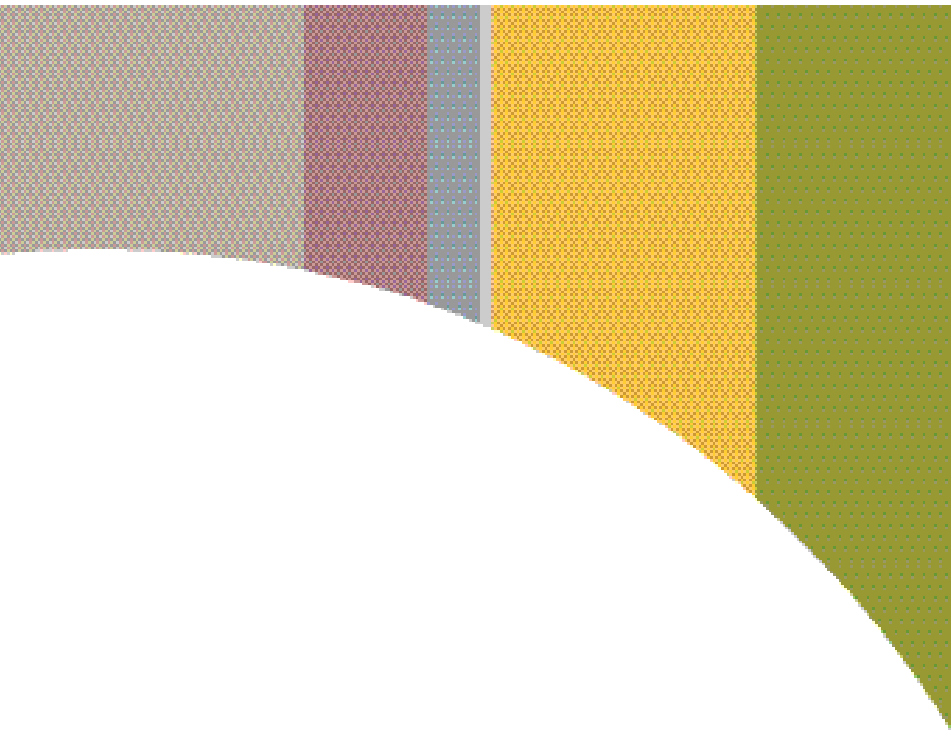


# Korean Coastal and Offshore Fishery Census

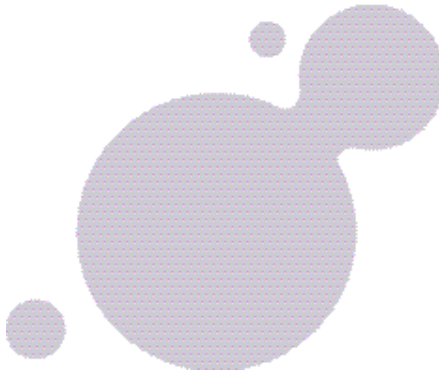


[ ]



해양수산부  
국립수산과학원  
National Fisheries Research &  
Development Institute





# 致辭

가 240

가

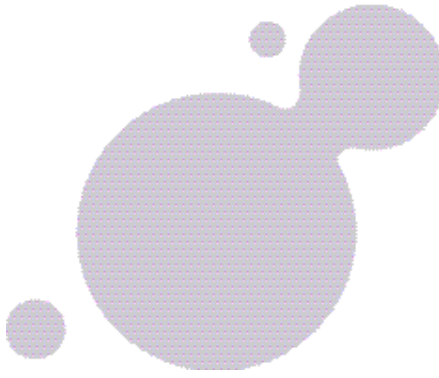
가

2002 ~ 2004 3

가

2004. 12.





# 發刊辭

가  
,

가

EEZ

EEZ

2002 2004

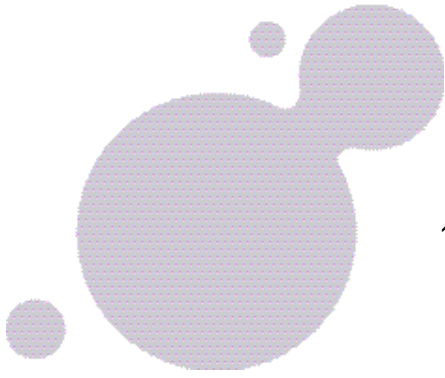
( )가

가

EEZ

2004. 12.





1.

2002 2

,  
, 2002 5 ,  
, ( )  
, ,  
.

, 2002 9 2004 12 ,  
.  
: 11

2.

가.

- (1) : 가 , ,  
, ,
- (2) : 가 , ,
- (3) : ( ) 가 ,  
, ,
- (4) : ,  
, .

3.

가  
2003 12 , 2002 12 .  
2004 8  
2003 12  
1  
1 , 8 .  
1 9 .



1.	가 .	15
2.		15
3.		16
4.		17

1.	가 .	
	가.	21
	.	23
	.	24
	.	25
2.	가.	
	1)	27
	가)	27
	)	38
	)	46
	)	59
	)	65
	)	69
	)	75

)	.....	79
)	.....	83
2)	.....	86
가)	.....	86
)	.....	90
)	.....	92
)	(     ) .....	97
)	(     ) .....	99
3)	.....	101
가)	.....	101
)	.....	103
)	.....	106
)	.....	108
)	.....	108
4)	.....	109
.		
1)	.....	110
2)	.....	111
3.		
가.		
1)	.....	123
2)	.....	125
.		
1)	.....	126
2)	.....	127
3)	.....	128

4.			
가.			
1)		.....	173
가)		.....	173
)		.....	174
)		.....	179
2)		.....	188
가)		.....	188
)		.....	189
)		.....	192
)	가	가	.....
			196
.			
1)		.....	199
가)		.....	199
)		.....	202
)		.....	206
)		가	.....
			208
2)		.....	214
가)		.....	214
)	가	.....	215
)		.....	217
)		가	.....
			221



# CHAPTER 1

1. 가 .
- 2.
- 3.
- 4.



1. 가 .

가 . 가 가  
2003 12 31 , 2002 12 31 .  
1998 2003

2.

가. (CPUE)

, 2 . 21  
,  
2002 10 2003 12 .

, ( , ), , ( )

.  
2  
, , ,  
2002 10  
2003 12 가

2002 10 2004

(Mitutoyo, CD-15)  
 0.1cm (Sartorius, M-5500S) 0.01g  
 (immature), (maturing), (mature), (spent) 4  
 (gonadosomatic index : GSI) / ×100

(w)/ (W)x (w )】  
 Gilson (Love and Westphal, 1981)

, 50% 가 1cm logistic

### 3.

가.

3 , 3~5 , 5~8 3  
 mm



mm

m

4.

가.

가

가

가



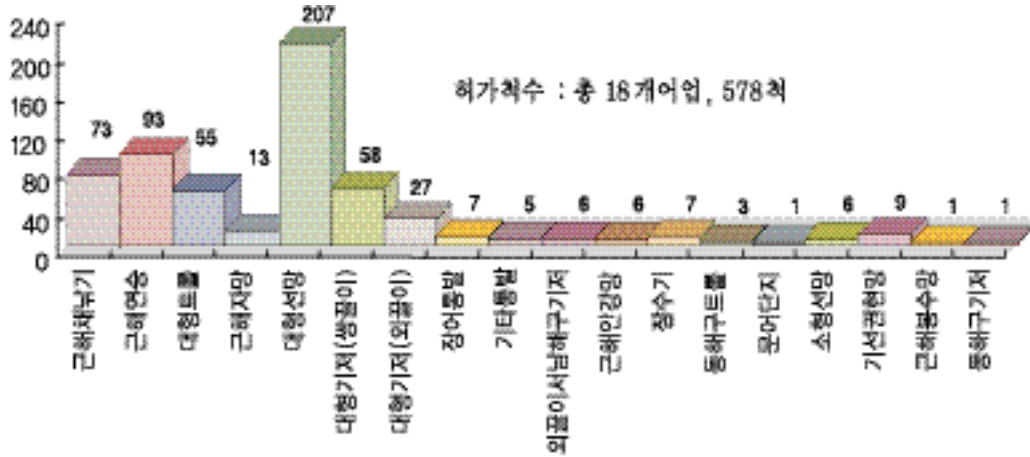
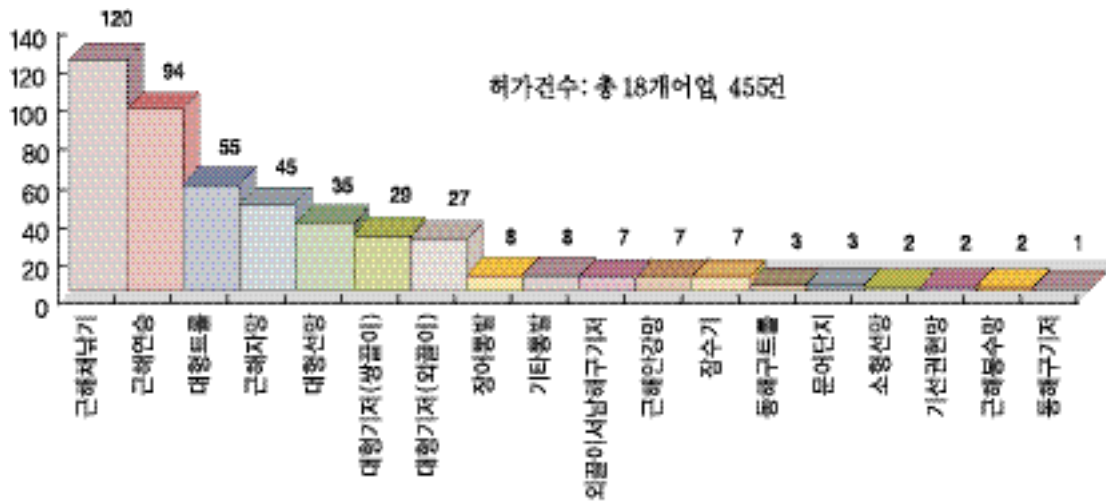
# CHAPTER 2

1. 가 .
- 2.
- 3.
- 4.



# [ 1. 가 . ]

가.



( )

## 1-1. 가

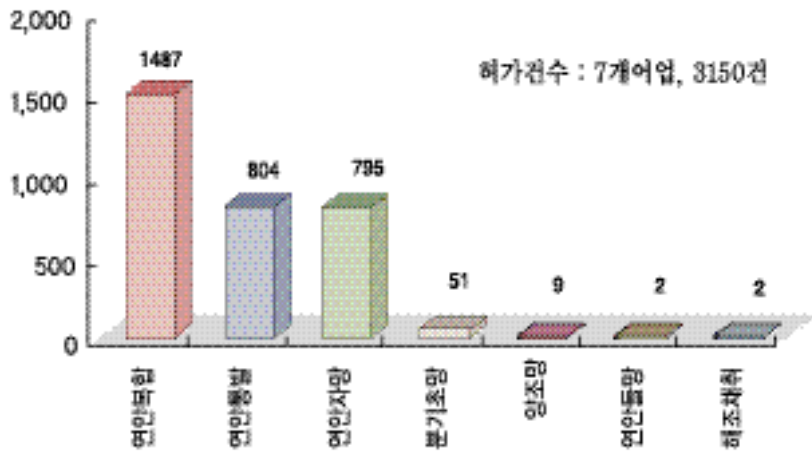
18 , 455 가 , 578 가 가 . 가  
 120 가 , 94 , 55 ,  
 45 , 35 , ( ) 29 , ( ) 27 .  
 가 207 가 , 93 , 73 ,  
 ( ) 58 , 55 , ( ) 27 .

1-1.

( : , )

	1998	1999	2000	2001	2002	2003	
	381,043	417,736	350,538	378,916	391,763	314,979	363,731
	199,694	210,361	166,830	194,049	161,813	146,958	179,956
	84,279	120,963	115,887	120,440	109,489	105,468	109,421
	56,819	52,640	45,897	39,049	37,984	28,113	43,417
	5,882	7,912	5,290	7,197	13,745	7,140	7,861
	7,942	6,290	5,470	3,895	3,889	3,194	5,113
	5,495	4,102	3,124	3,415	3,465	6,518	4,353
	5,490	1,608	643	5,037	2,200	7,159	3,690
	5,204	3,067	2,787	2,791	2,821	2,573	3,207
	3,251	1,142	3,149	1,148	1,887	1,213	1,965
	2,403	3,270	304	1,039	1,057	1,050	1,521
	1,284	4,406	419	366	160	138	1,129
	3,046	1,682	472	71	0	11	880
	108	293	174	16	196	3,343	688
	3	0	92	164	184	1,764	368
	131	0	0	198	83	274	114
	0	0	0	41	171	55	45
	12	0	0	0	0	8	3
	0	0	0	0	2	0	0

(1998~2003) 1999 417,736 가  
 , 1998 381,043 , 2001 378,916 , 2000 350,538 , 2002  
 2003 339,176 , 314,979 .  
 (6 ) 179,956 가  
 , ( ), , ( ), .  
 2003  
 .  
 1998 50% .  
 2003



1-2. 가

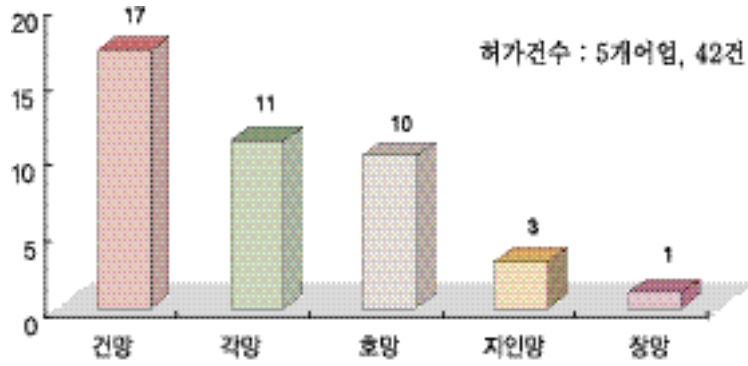
7 , 3,150 가 가 . 가  
 1,487 가 , 804 , 795 ,  
 51 , 9 , 2

1-2.

( : )

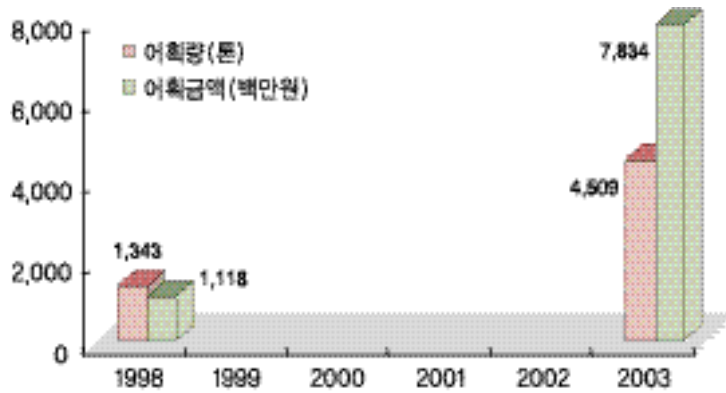
	1998	1999	2000	2001	2002	2003	
	5,343	4,844	5,606	6,937	5,391	8,383	6,084
	61	0	0	0	0	8	12
	571	1,505	973	995	696	0	790
	2,160	1,686	2,265	3,034	1,869	3,433	2,408
	2,060	1,335	1,246	2,362	2,575	1,577	1,859
	7	0	0	0	105	0	19
	484	318	1,054	542	141	0	423
	0	0	68	4	5	0	13
	0	0	0	0	0	3,365	561

(1998~2003) 2003 8,383 가  
 , 1999 4,844 가 , 1998 5,343 , 2000 5,606 , 2001  
 6,937 , 2002 5,391 .  
 (6 ) 2,408 가  
 1,859 . 2003 3,433 , 3,365  
 , 1,577 .



1-3. 가

5, 42 가 가 . 가  
 17 가 , 11 , 10 , 3 , 1  
 가 1 1 , 가 .  
 5 , 42 .

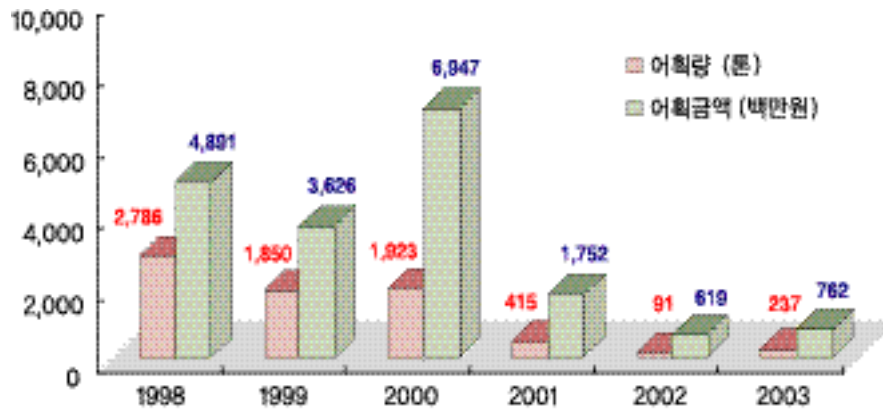


1-4. ( )

. 1998 1,343 ,  
 1999~2002 , 2003 4,509 .



26 , 1,829ha



1-5.

( )

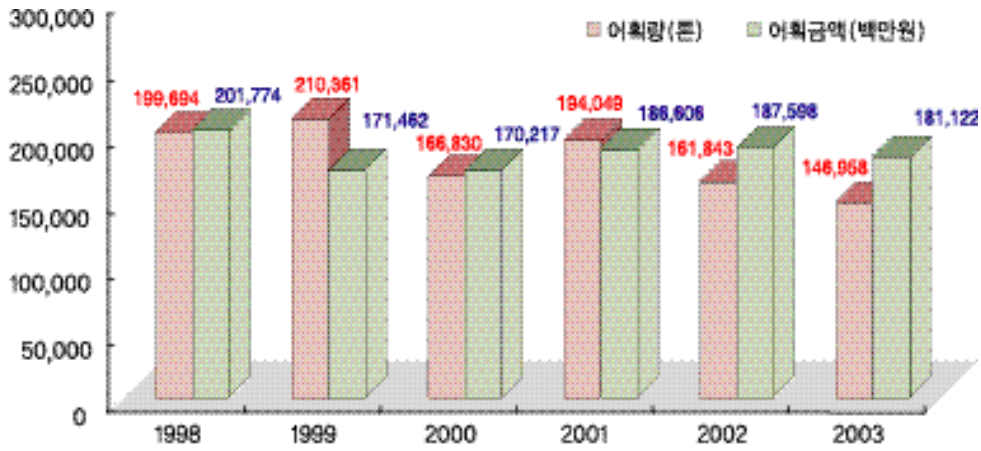
. 1998 2,786 가  
, 2002 91 가 , 2003 237



# [ 2 ]

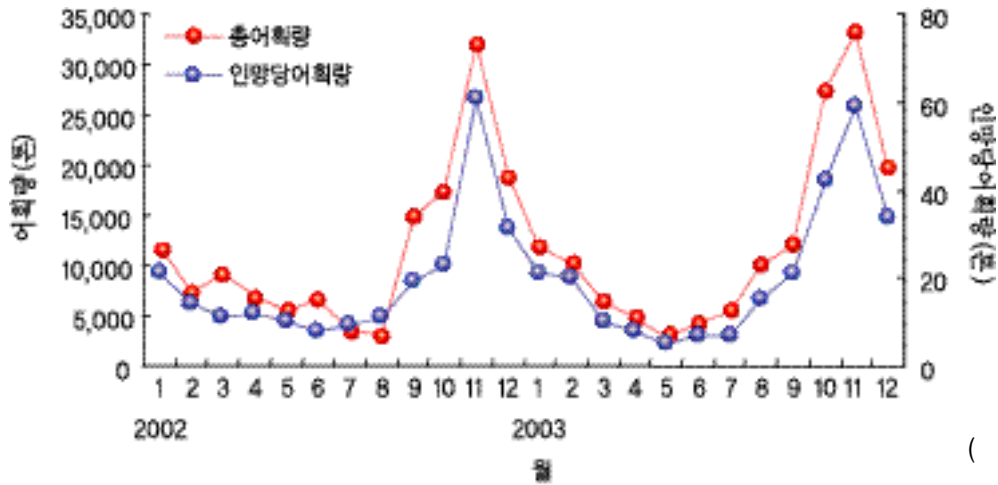
- 가.
- 1)
- 가)

(CPUE)



2-1.

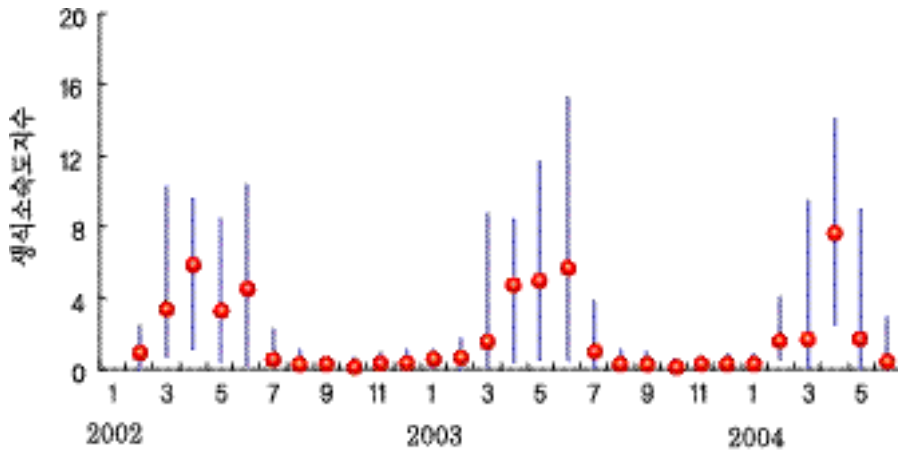
, 1999 210,361 가  
 , 2003 146,958 가



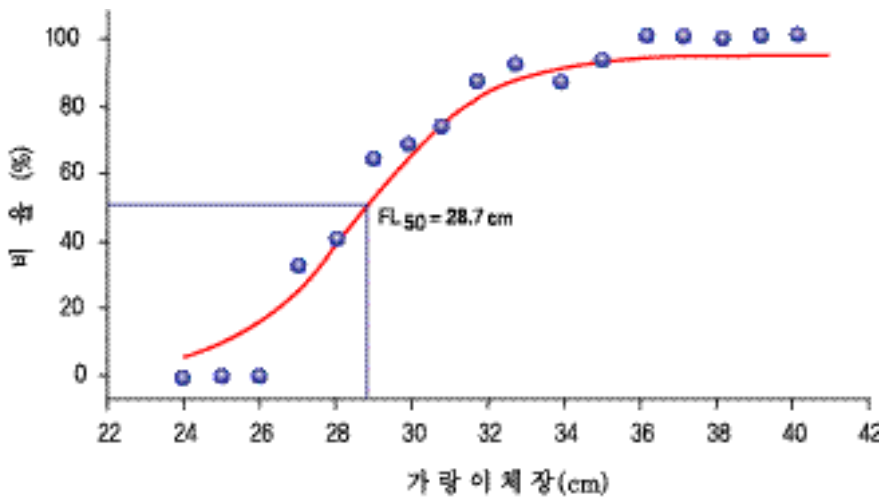
2-2.



3~6 4~5  
 570,184 (FL 38.8cm), 112,447 (FL 30.1cm) 50%  
 가 (Fork Length) 28.7cm , 2.4

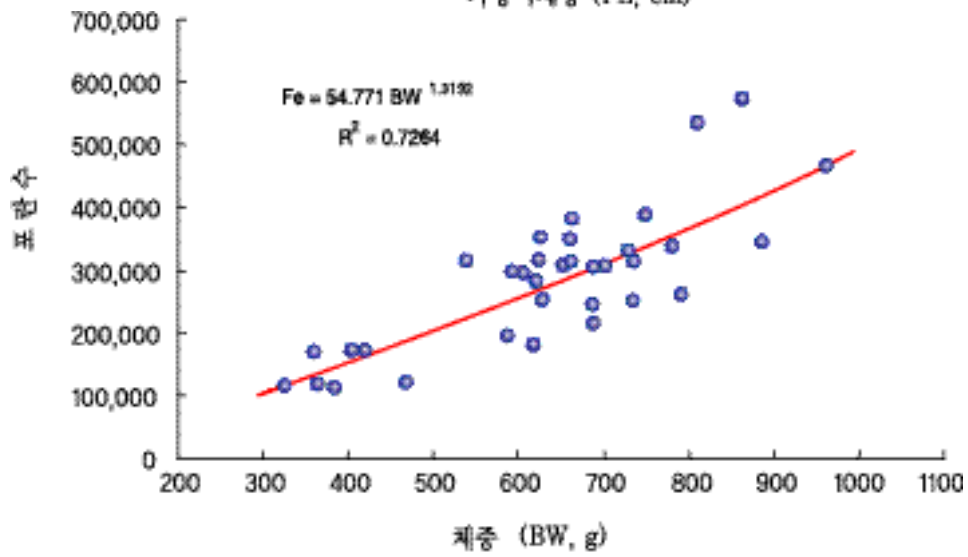
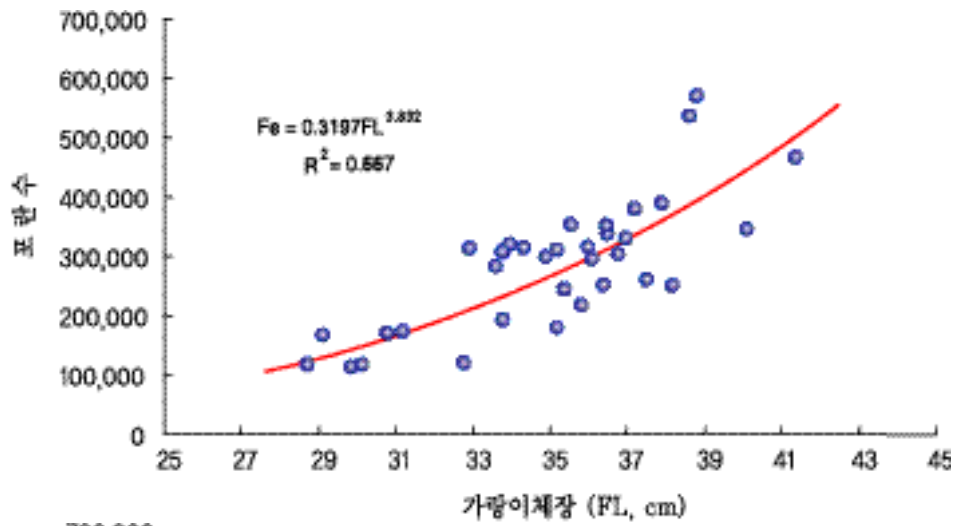


2-5.

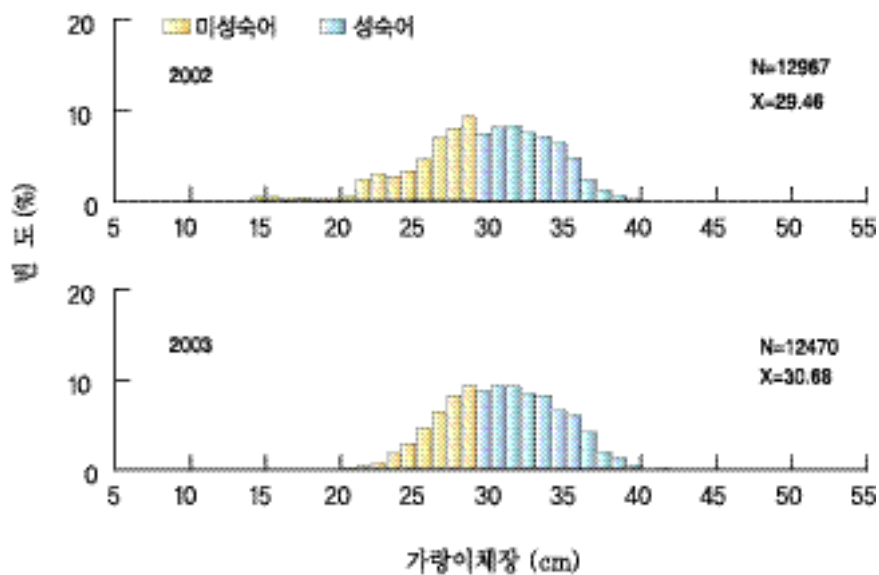


2-6.

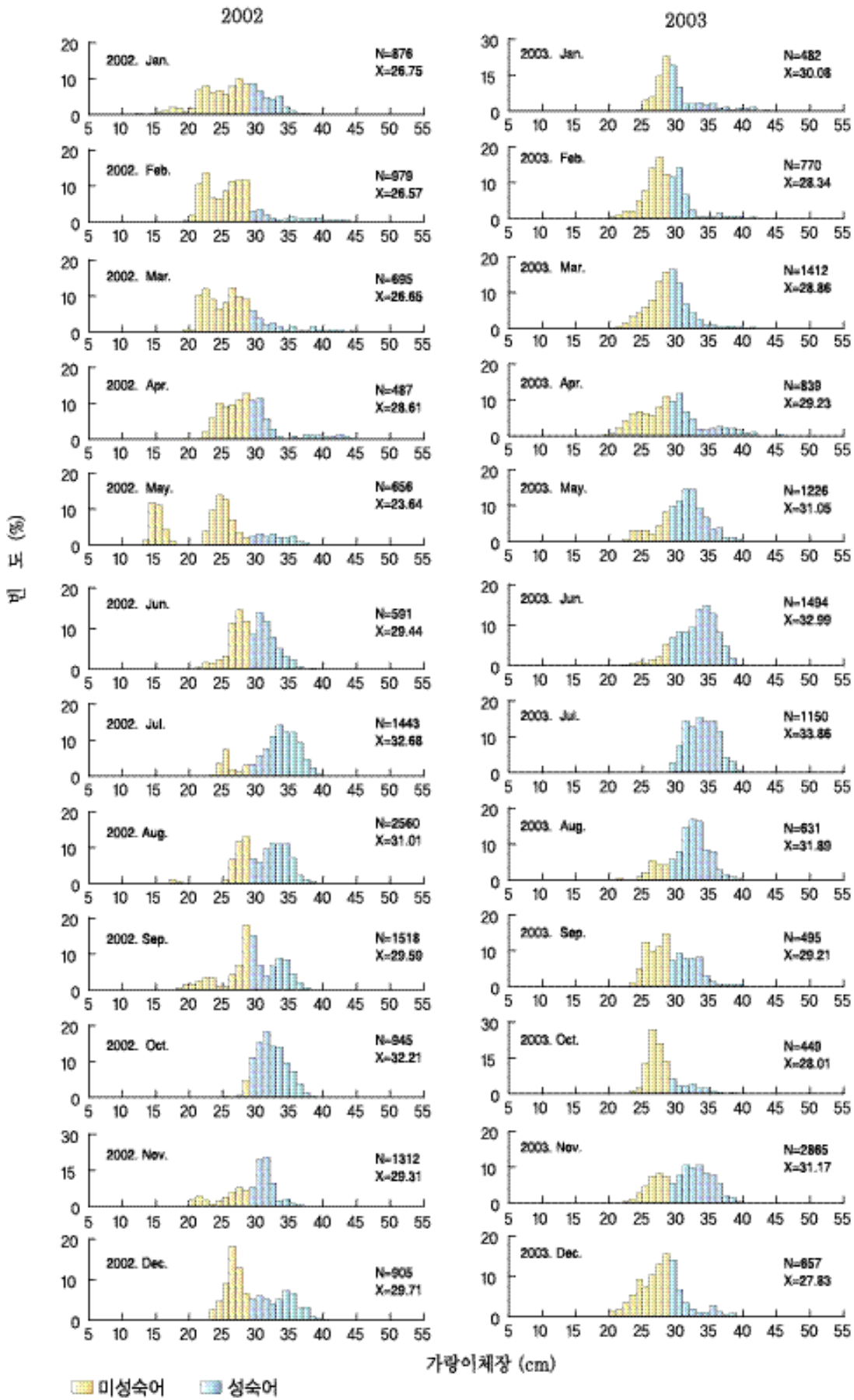
2002 (가 ) 29.46cm ( 12,967 )  
 , 2003 30.68cm ( 12,470 ) . 2002  
 (가 28.7cm) 5,815 44.8% , 2003  
 4,403 35.3% . 2002 2 5  
 82.23%, 81.25% , 2003 10 12 77.28%,  
 66.97%



2-7.

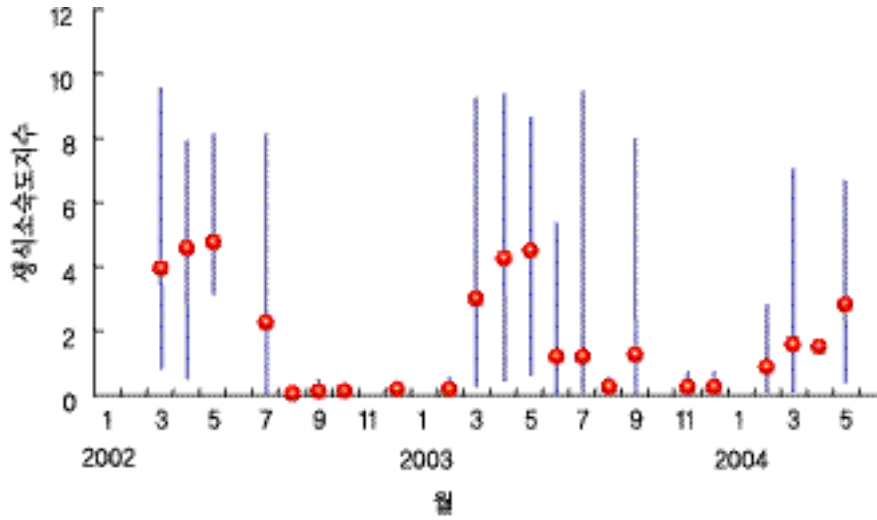


2-8.

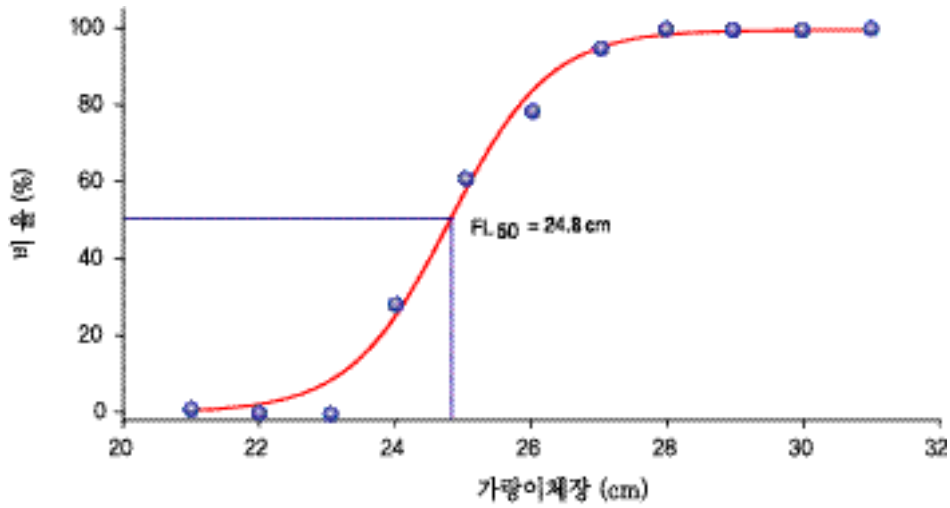


2-9.

3~7 (FL 40.6cm), 33,493 (FL 27.0cm), 3~5, 627,061  
 (Fork Length) 24.8cm, 2.7, 50% 가



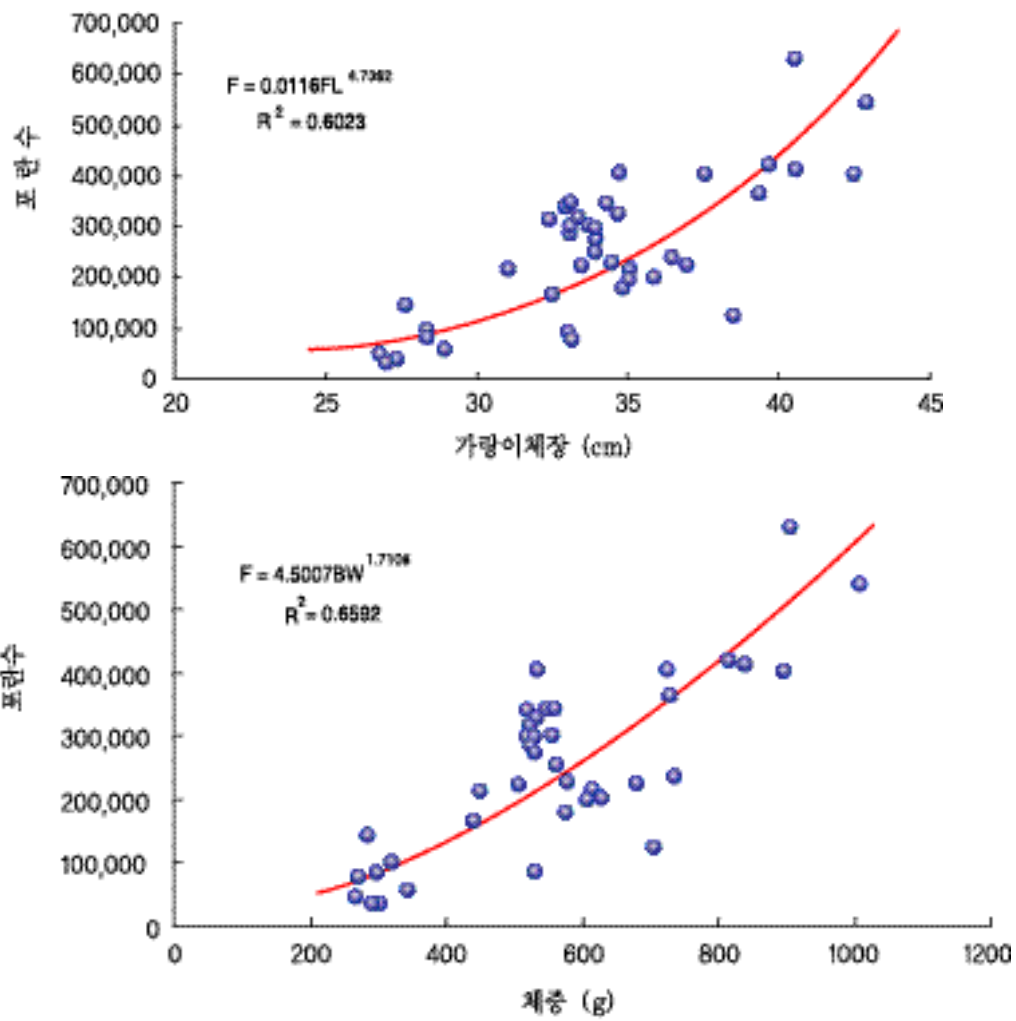
2-10.



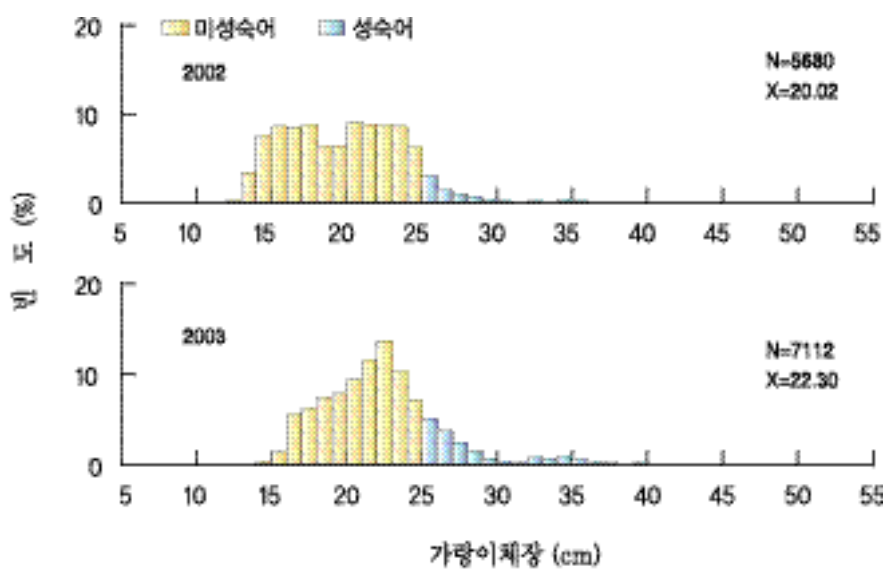
2-11.

2002 가 20.02cm ( 5,680 ) ,  
 2003 22.30cm ( 7,112 ) .  
 5,197 91.4% , 2003 5,775 81.2%  
 , 2002 2003

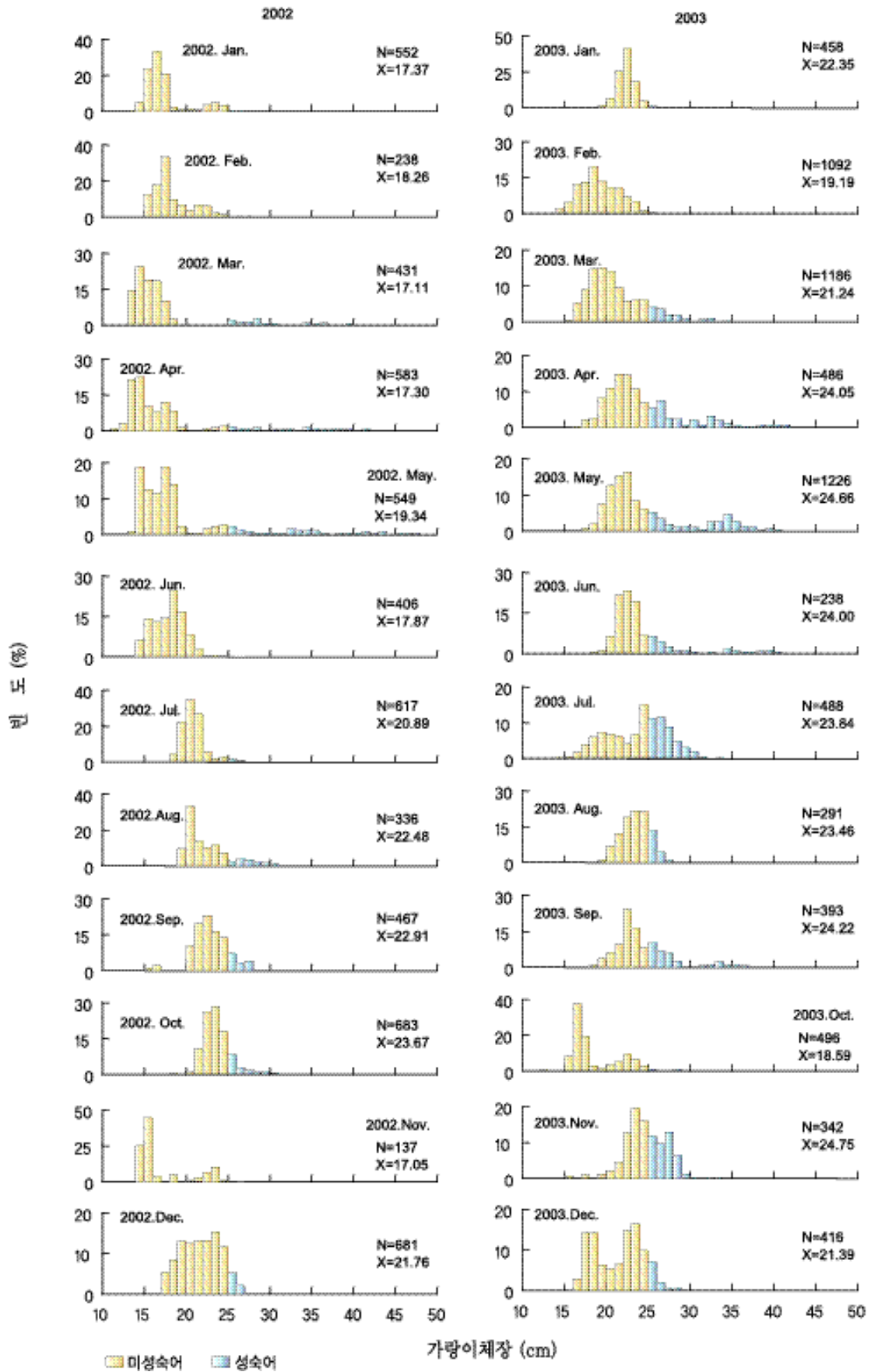




2-12.

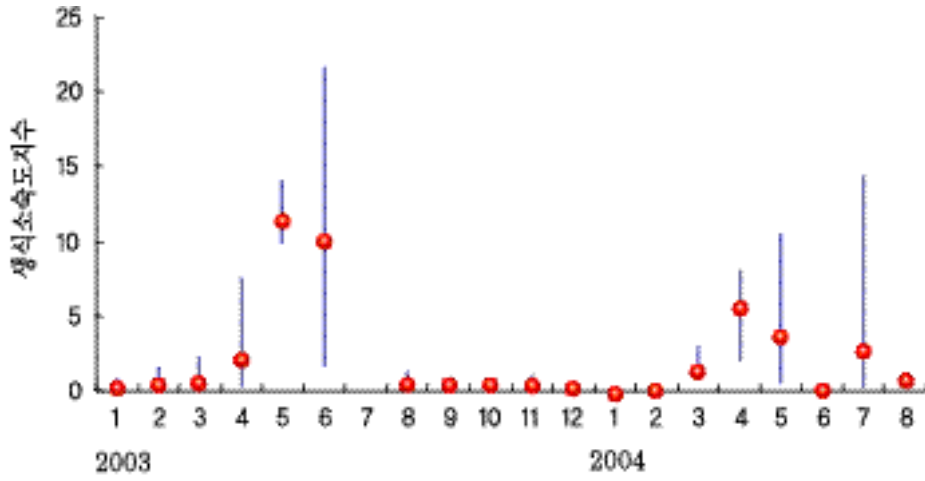


2-13.

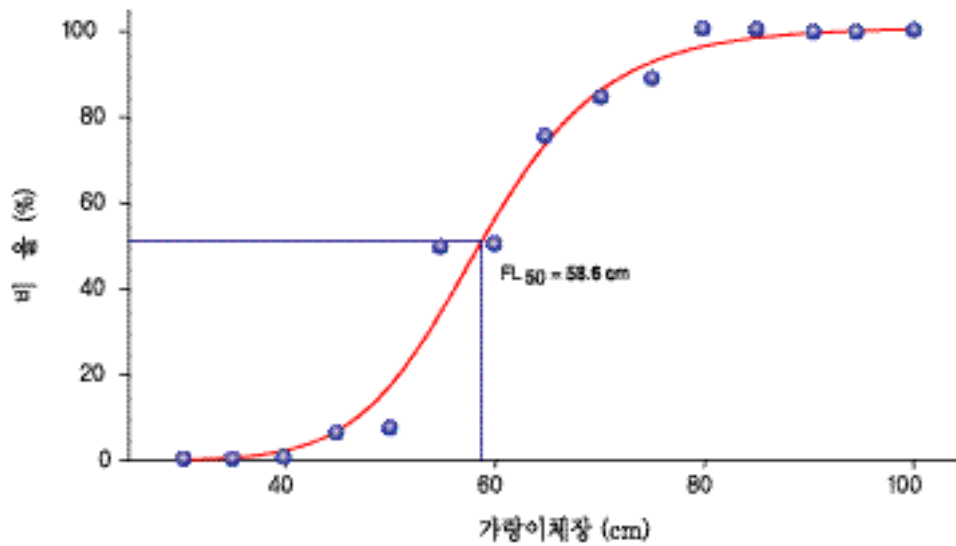


2-14.

가 4~7 (Fork Length) 58.6cm 5~6 50%

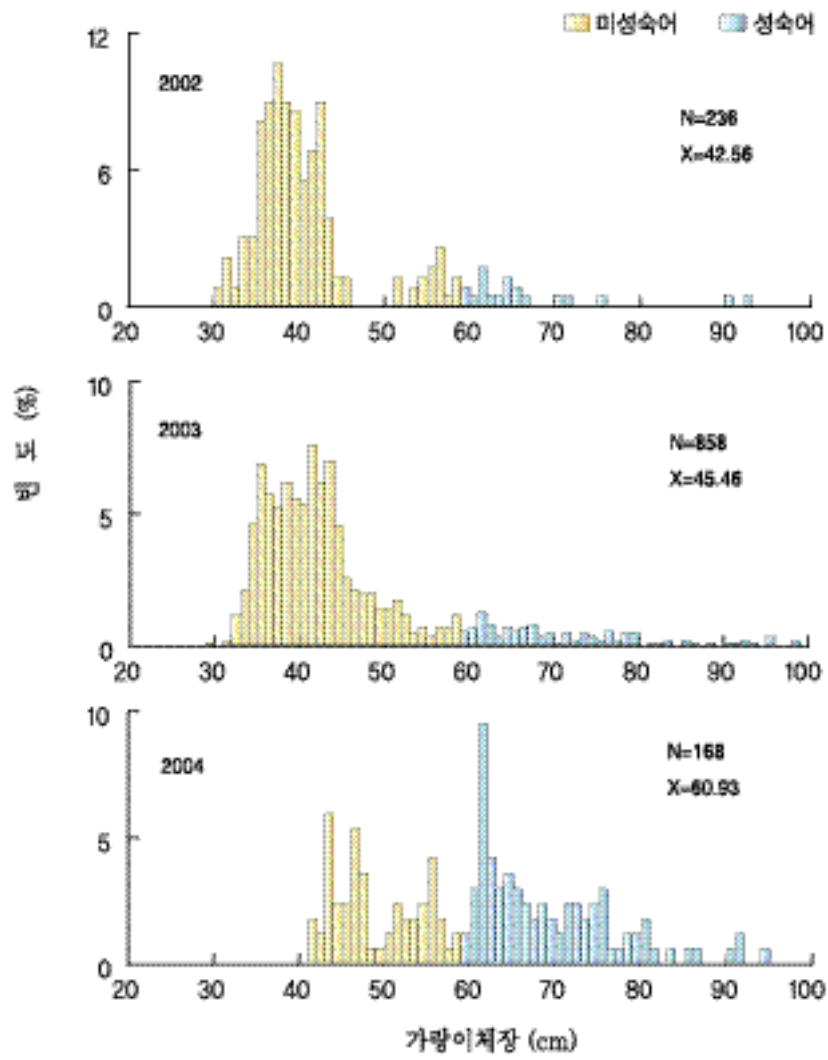


2-15.

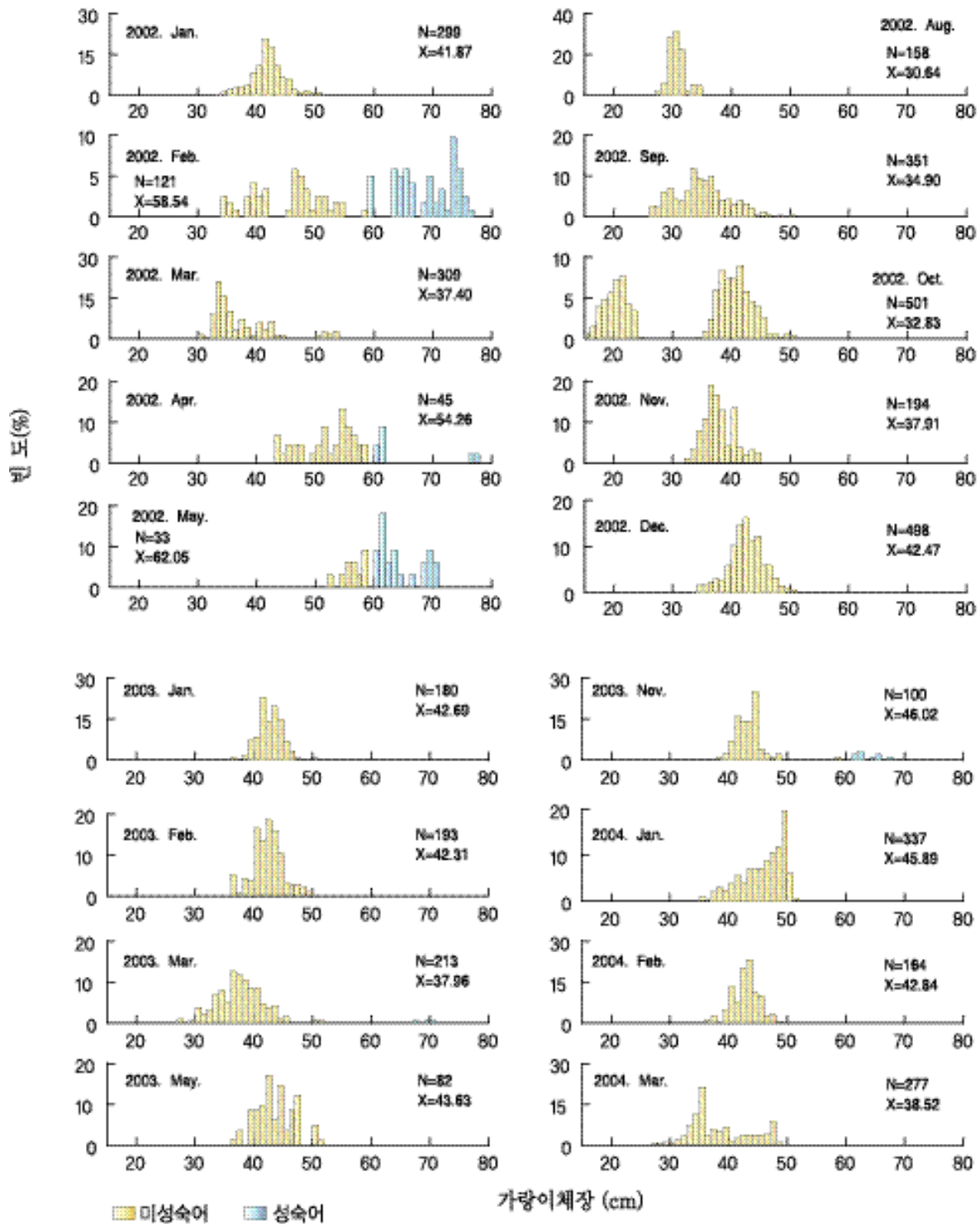


2-16.

2002 가 39.25cm ( 2,745 ), 2003  
 43.74cm ( 1,626 ) , 2004 45.82cm ( 953 )  
 2002 2,608 95%  
 , 2003 1,496 92% , 2004 848 89%  
 2002 , 2003 , 2004

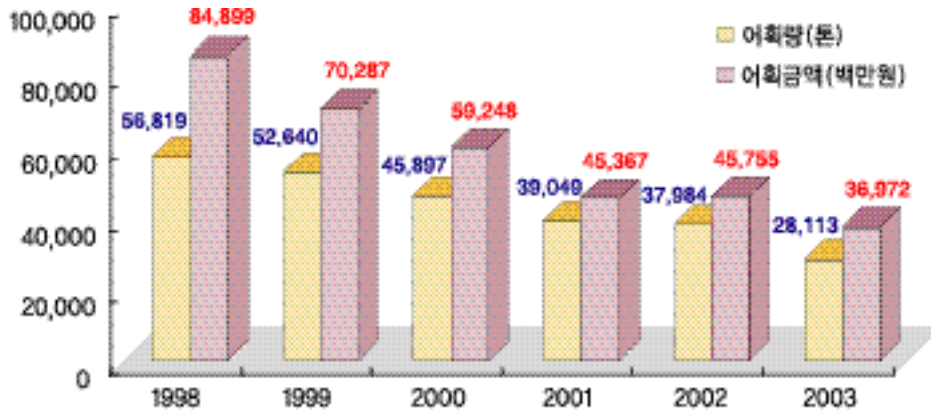


2-17.



2-18.

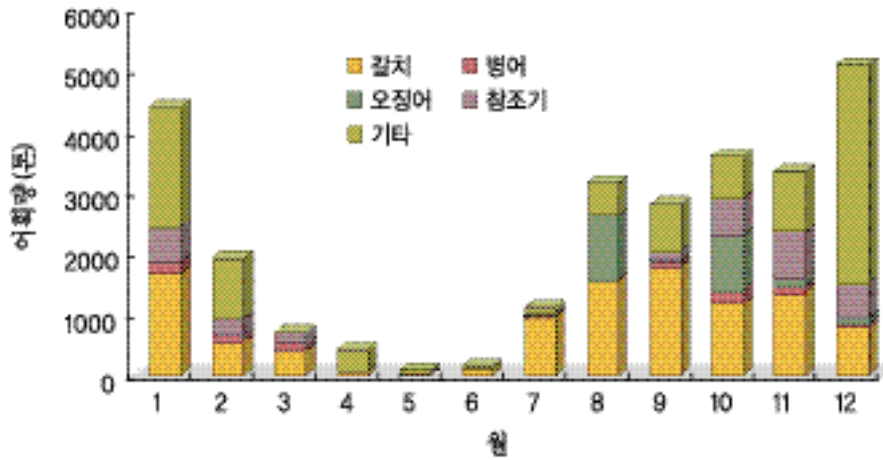
)



2-19.

( )

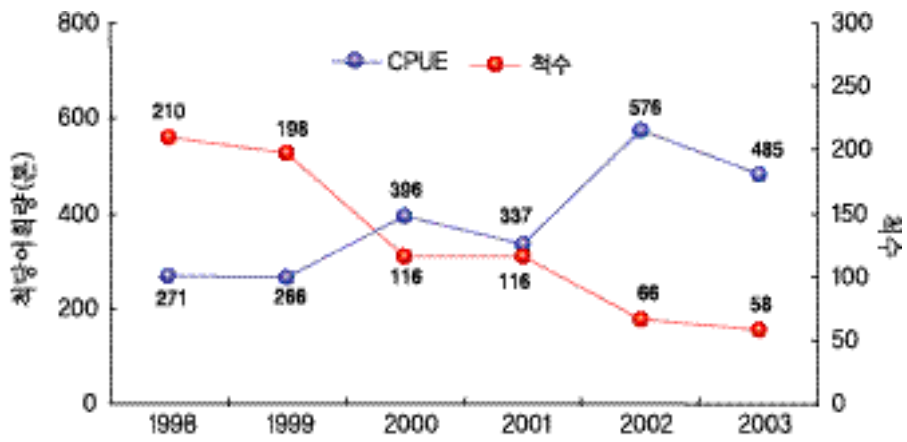
( ) 1998 56,819 1999 52,640  
 , 2000 45,897 , 2001 39,049 , 2002 37,984 , 2003 28,113



2-20.

( )

12 5,081 가 , 5 80 가

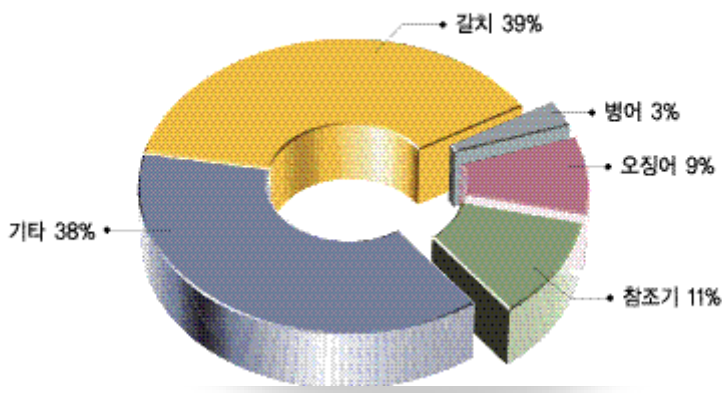


2-21.

( ) CPUE ( )

58 . CPUE 1998 271 2002 576 , 2003 485

가



2-22.

( )

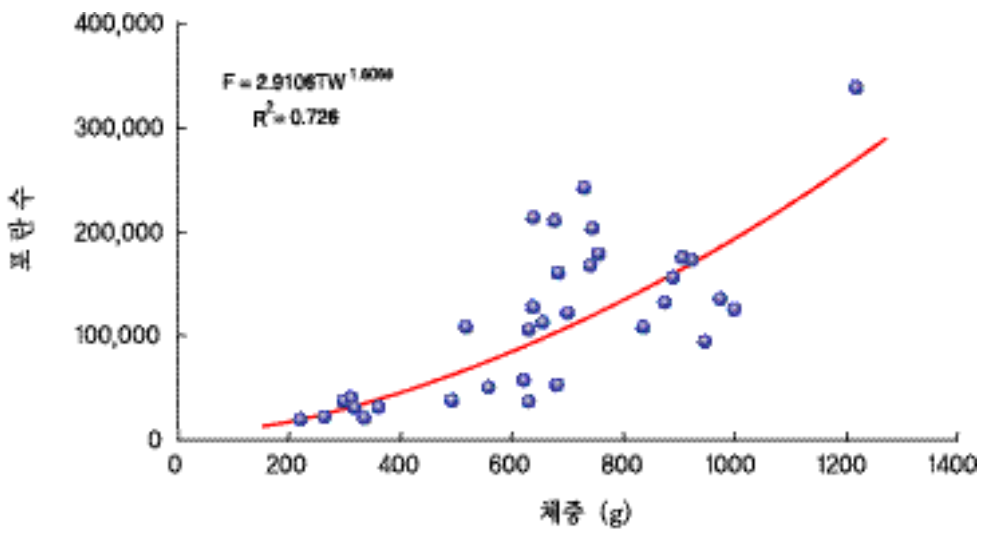
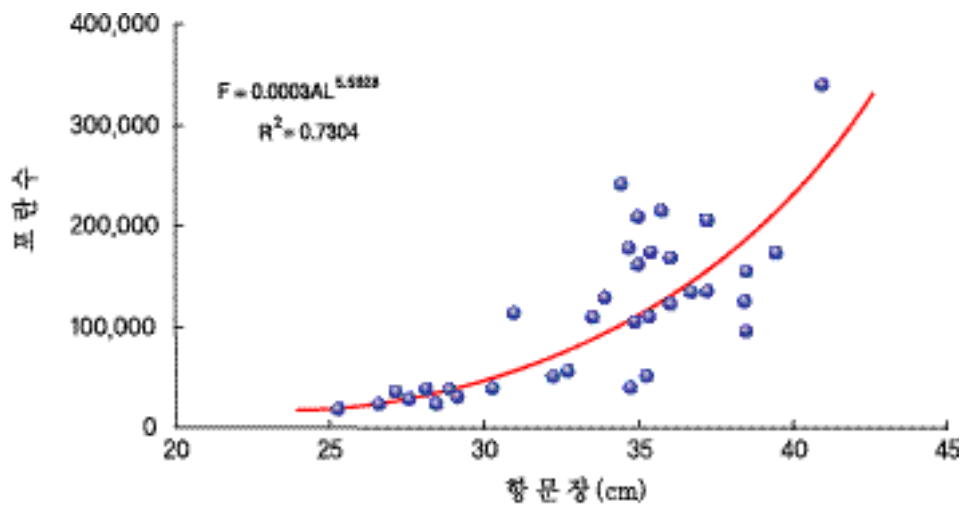
9%, 3% 가 39%, 11%,

( )

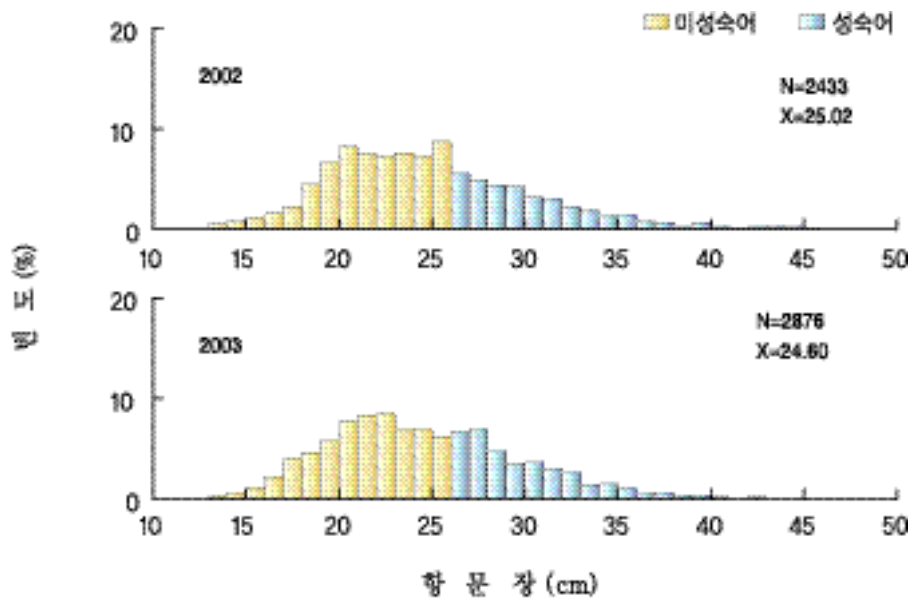
( )



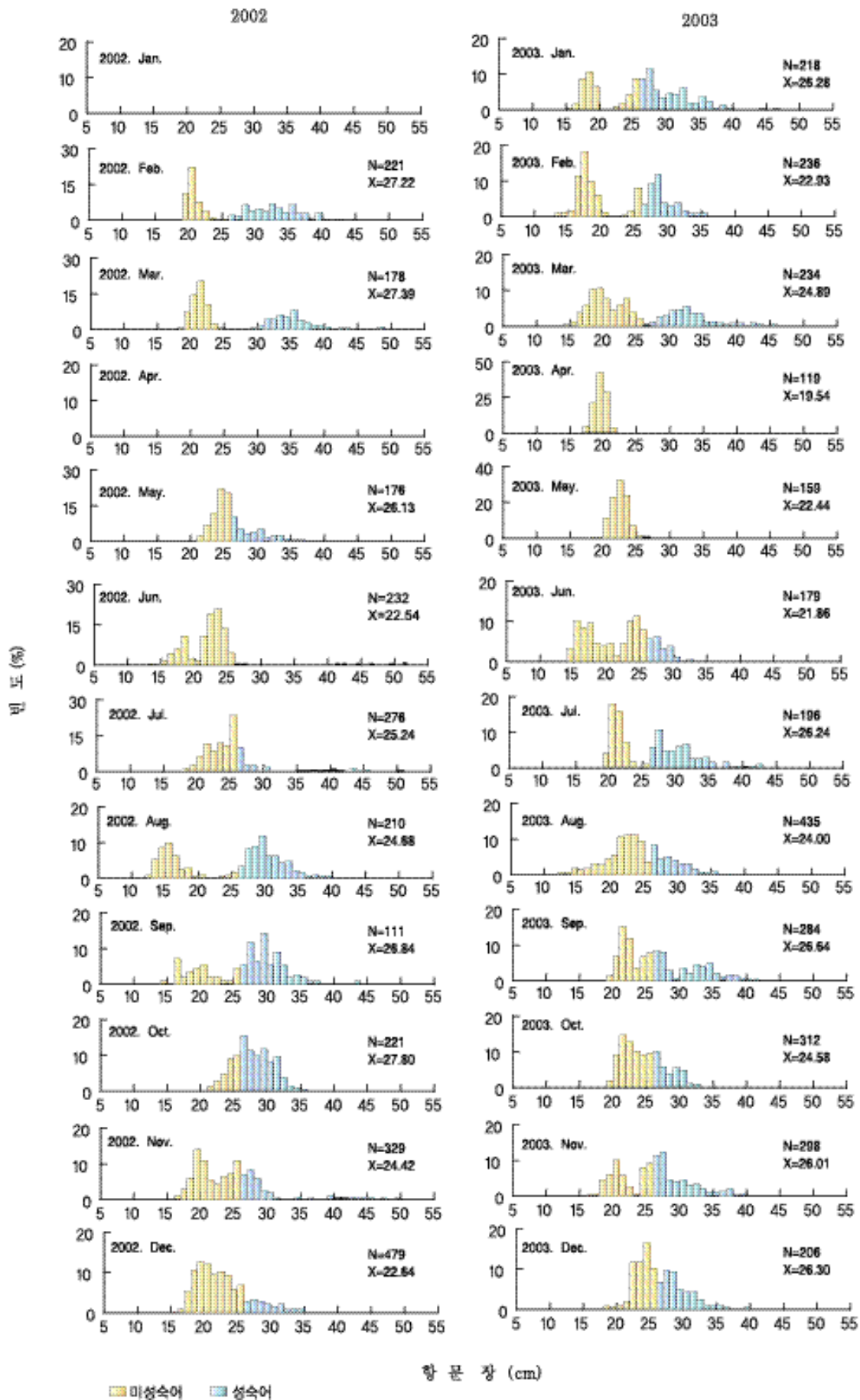




2-25.

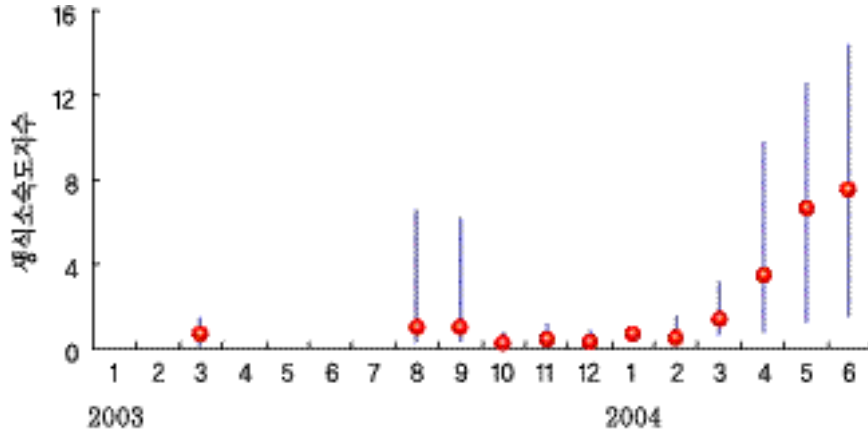


2-26.

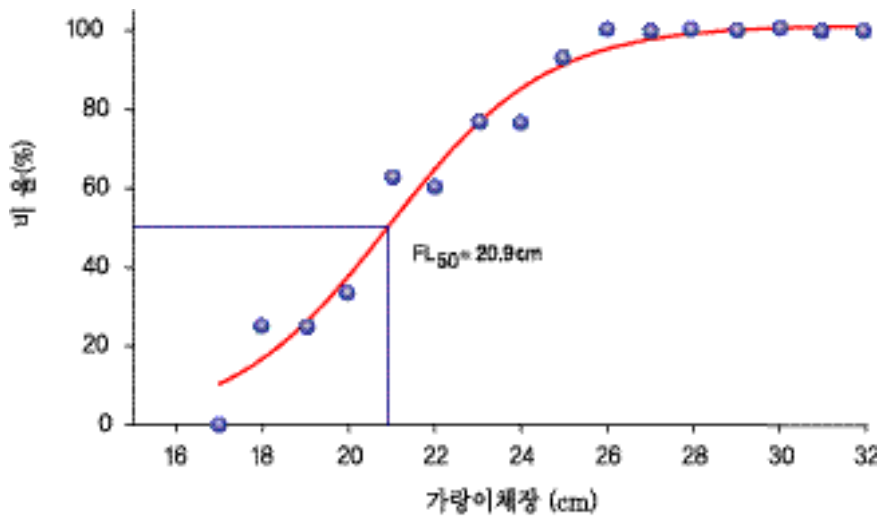


2-27.

가 4~9 (Fork Length) 20.9cm, 5~6, 2.3, 50%

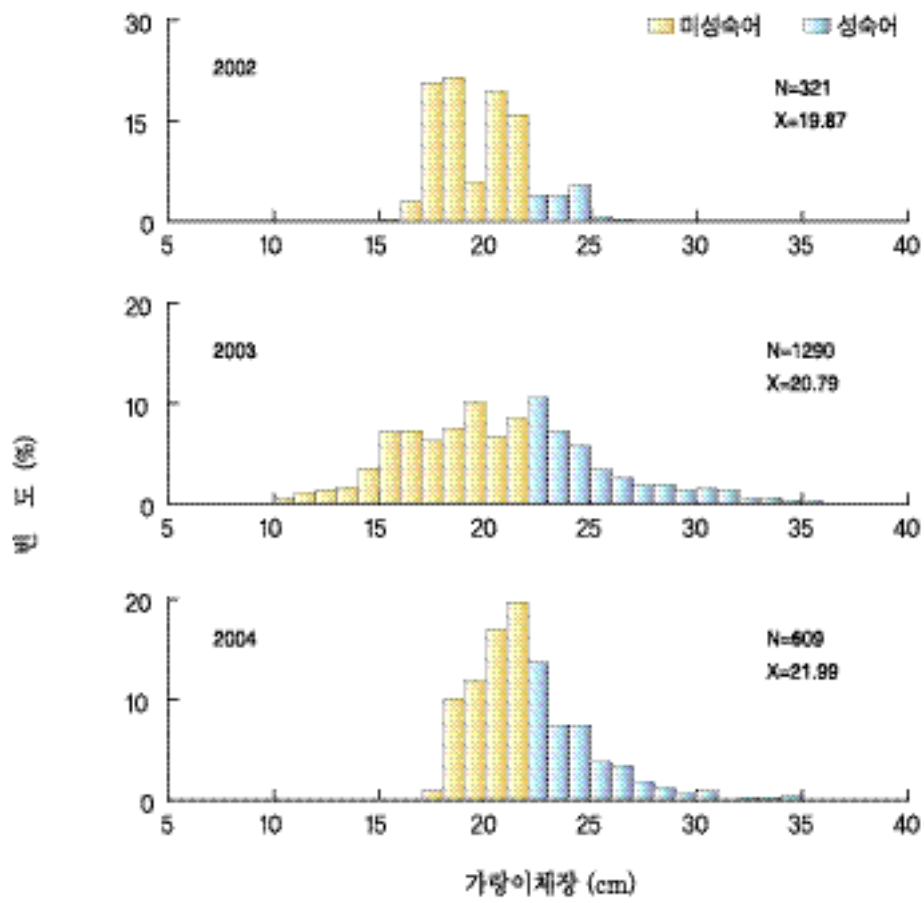


2-28.

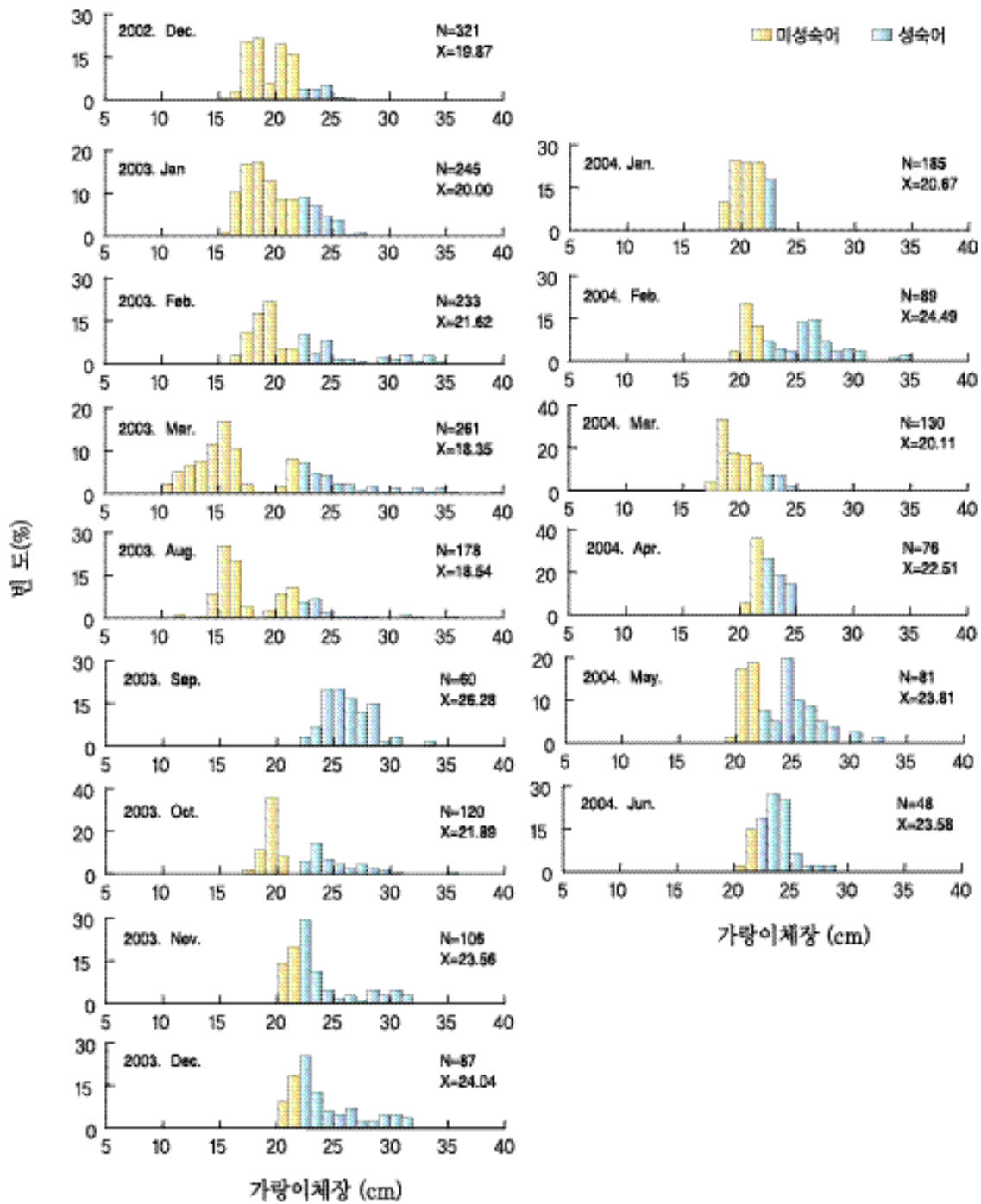


2-29.

2002 가 19.87cm ( 321 ), 2003  
 20.79cm ( 1,290 ) , 2004 6 21.99cm ( 609 )  
 가 2002 277 86.3% , 2003 792  
 61.4% , 2004 6 361 59.3%  
 2003 9 , 2002 12 2003 3 63%  
 , 2004 2 ~6 61.6~80.5%



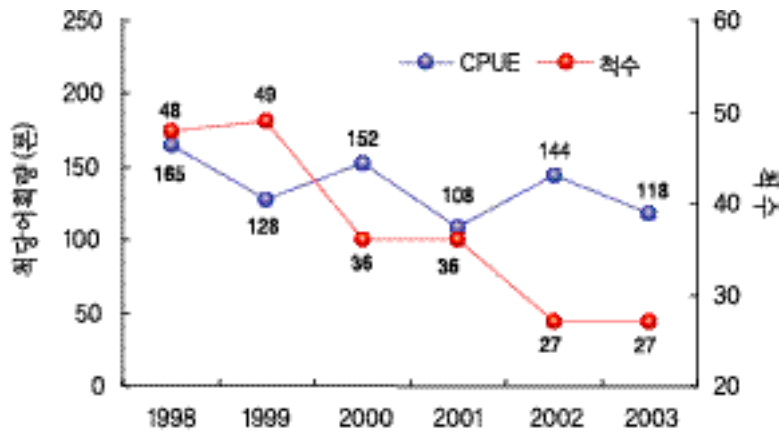
2-30.



2-31.

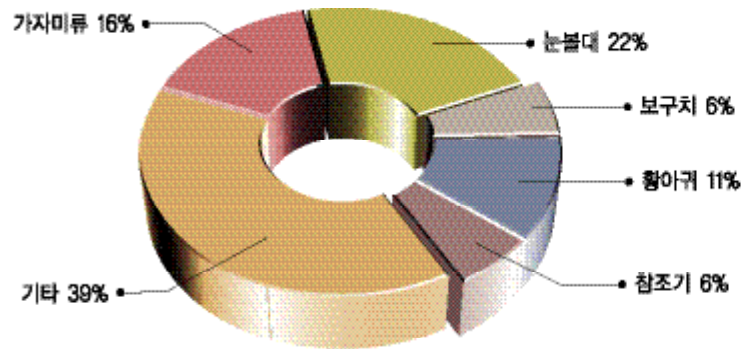
( )  
 , CPUE ( ) 가  
 가





2-34.

( ) CPUE ( )  
 . 1998 48 2003  
 27 . CPUE 1998 165 , 1999 128 , 2000 152 , 2001  
 108 , 2002 144 , 2003 118



2-35.

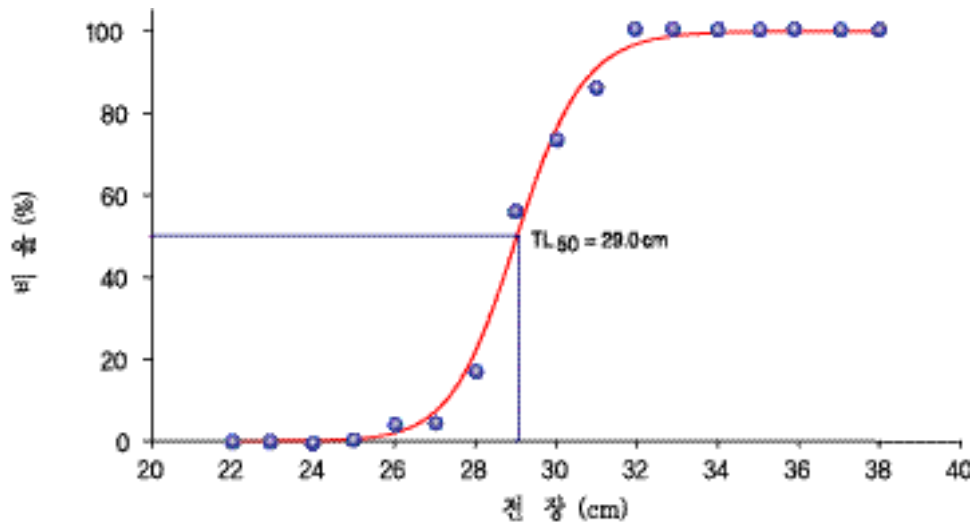
( ) 22%, 가  
 16%, 11%, 6%, 6% , 가

( ) , 가 , ,

7 가 8 10

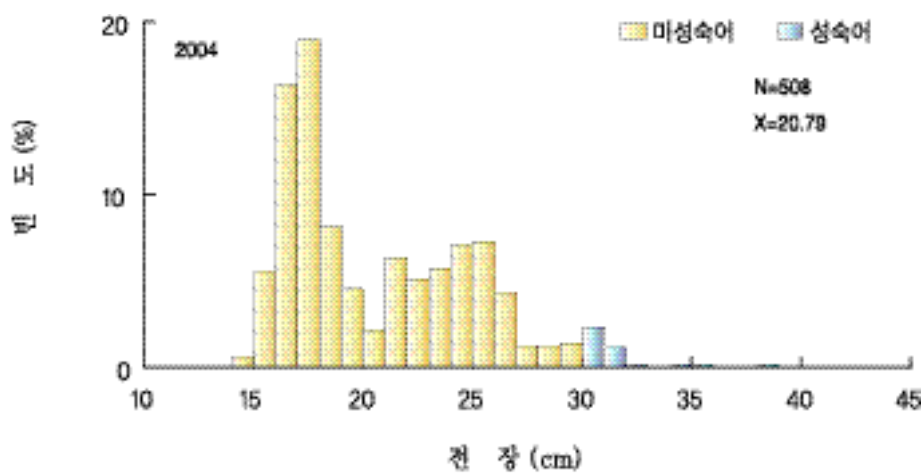
9~10 , 50%

(Total Length) 29.0cm



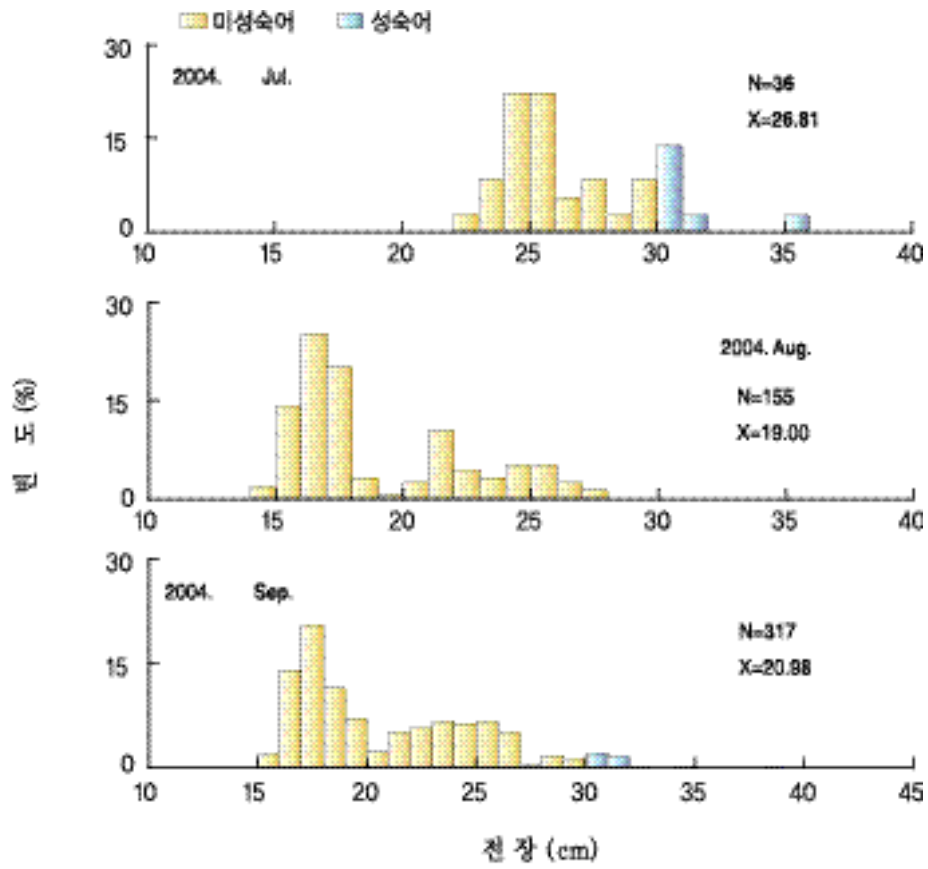
2-36.

2004 ( ) 20.79cm ( 508 )



2-37.

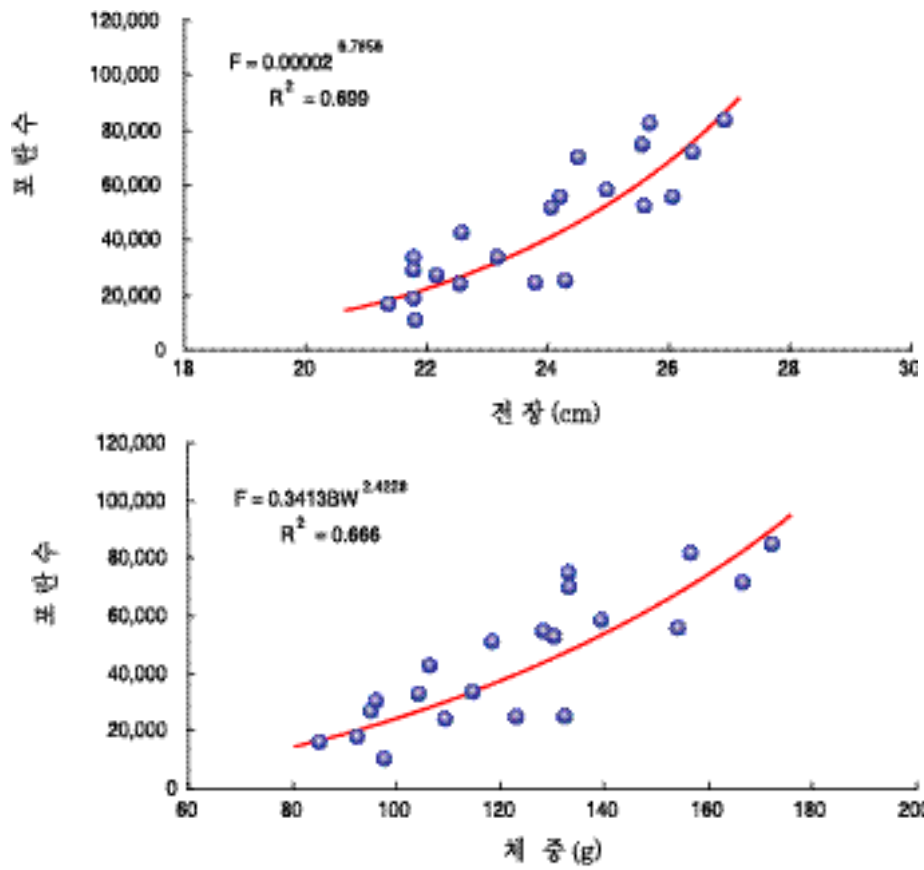




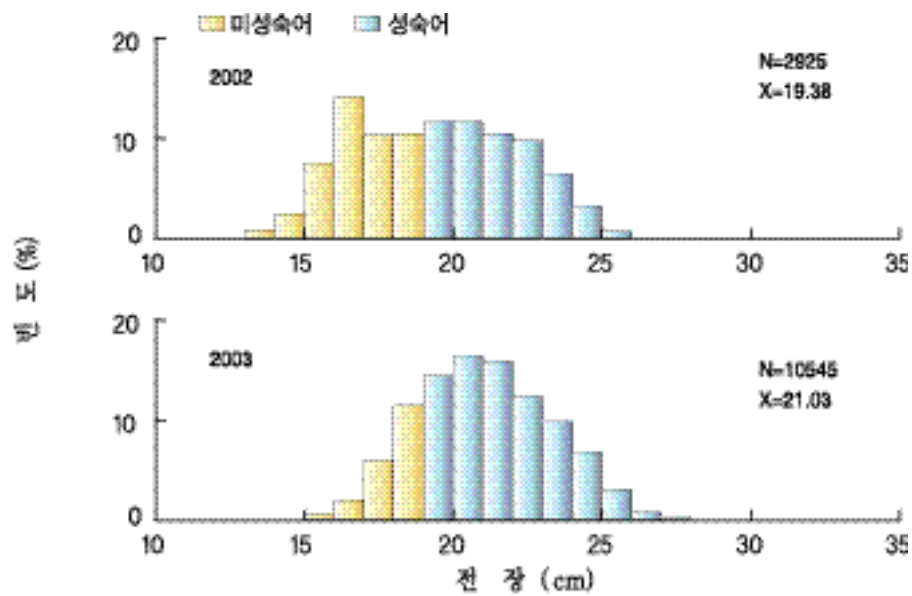
2-38.

2004 452  
 89.0% .  
 7 26.81cm 가 78.8%, 8 19.0cm, 100%. 9  
 20.98cm, 88.9% .

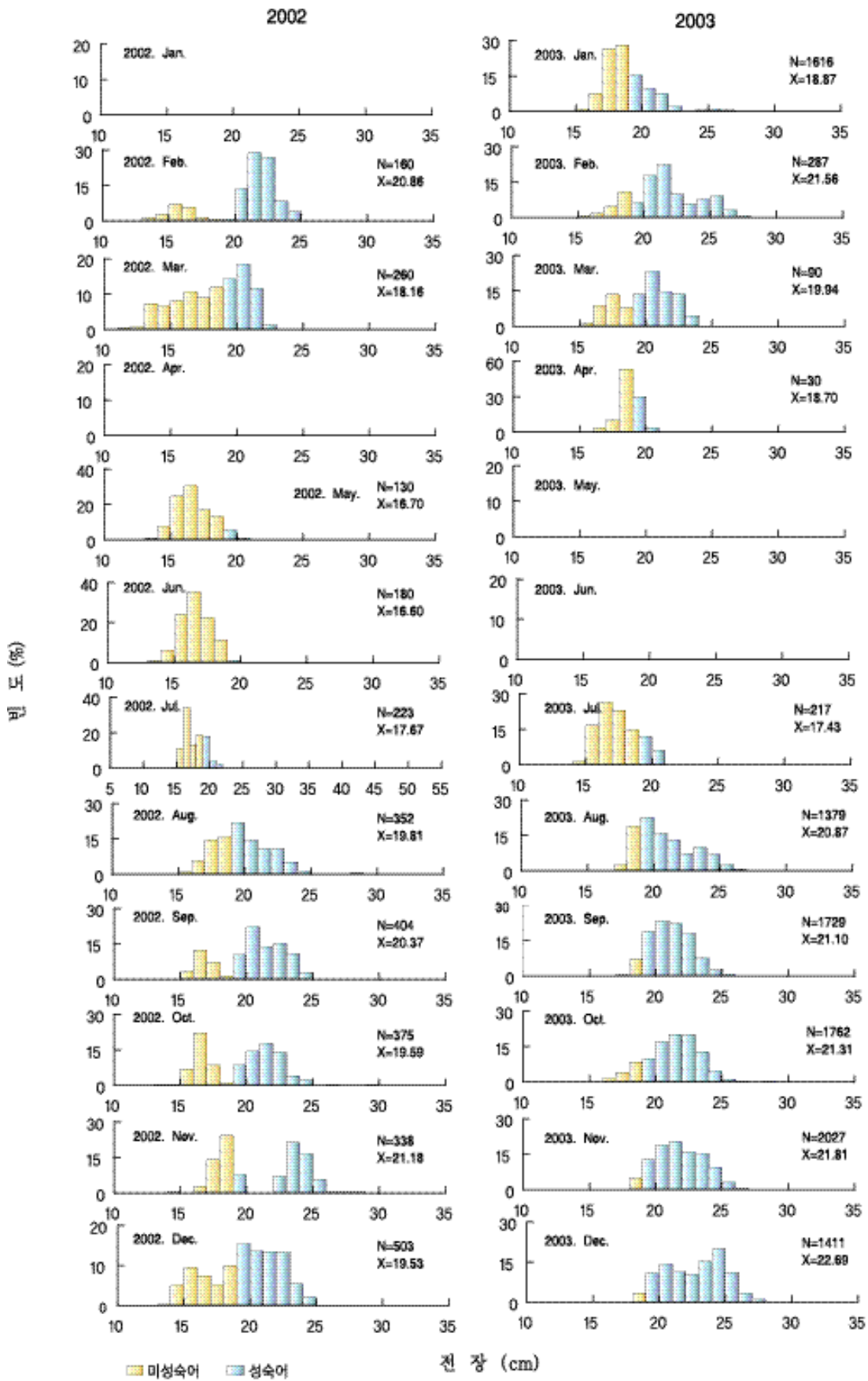




2-41.

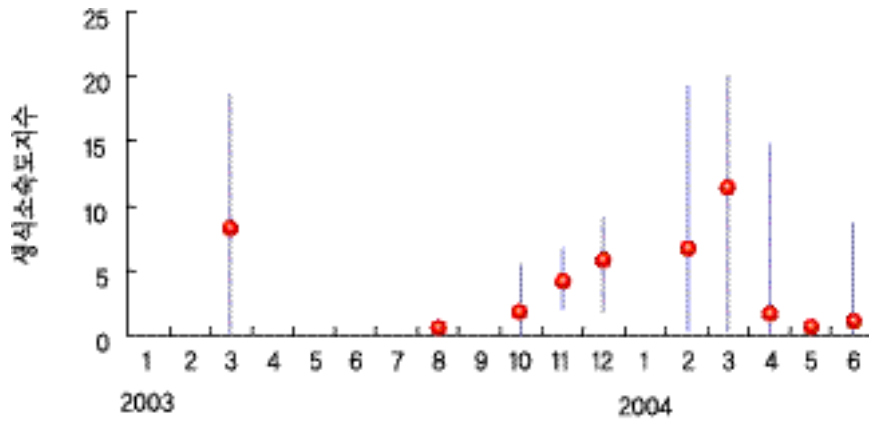


2-42.

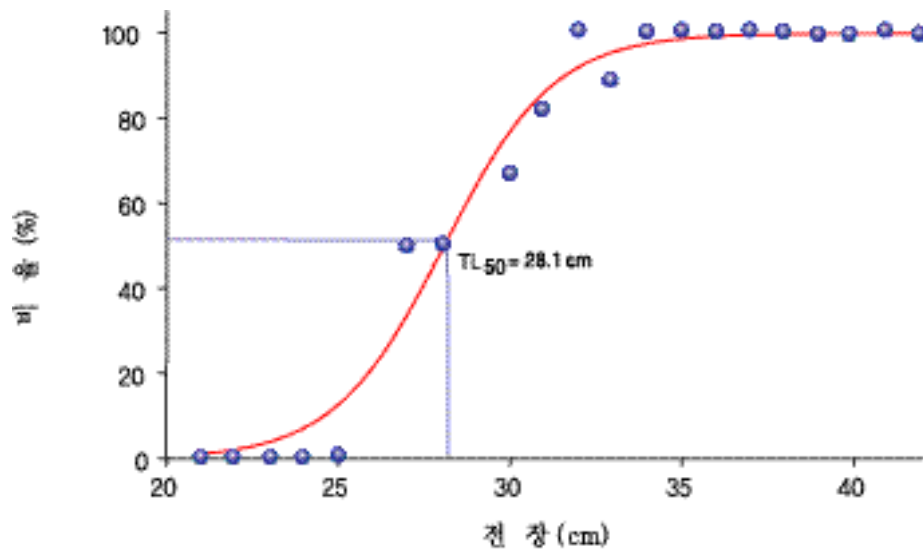


2-43.

가  
 가 2~4 2~3 50%  
 (Total Length) 28.1cm

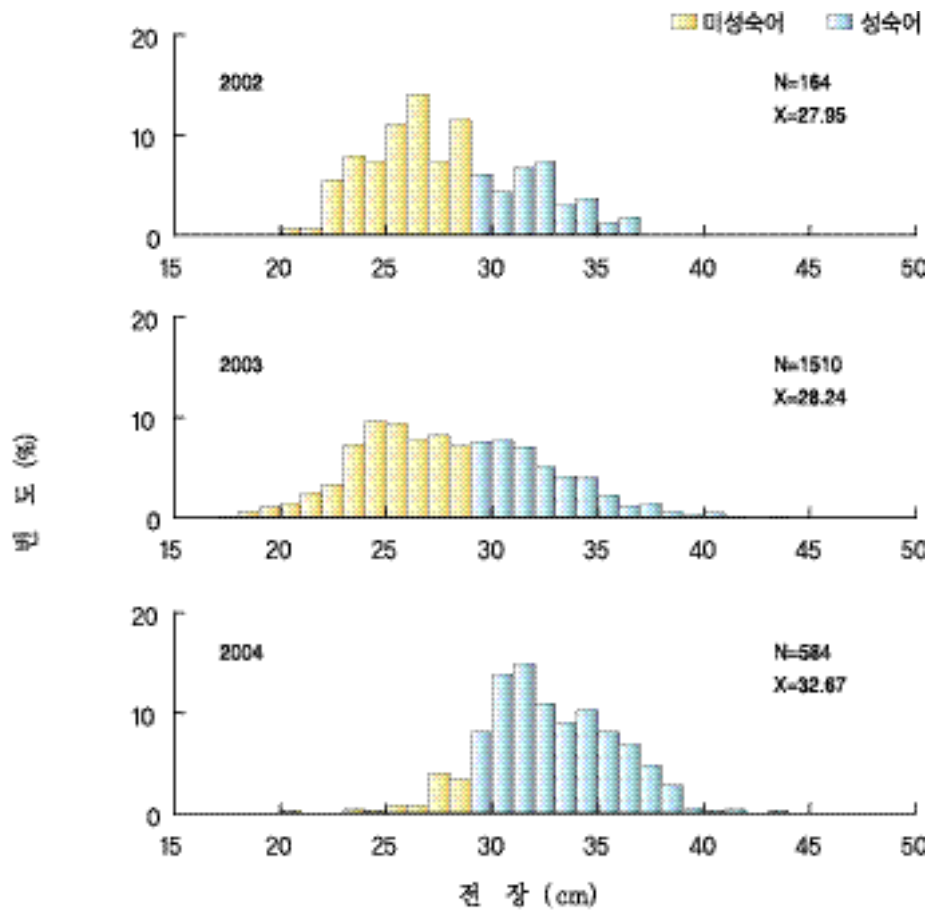


2-44. 가

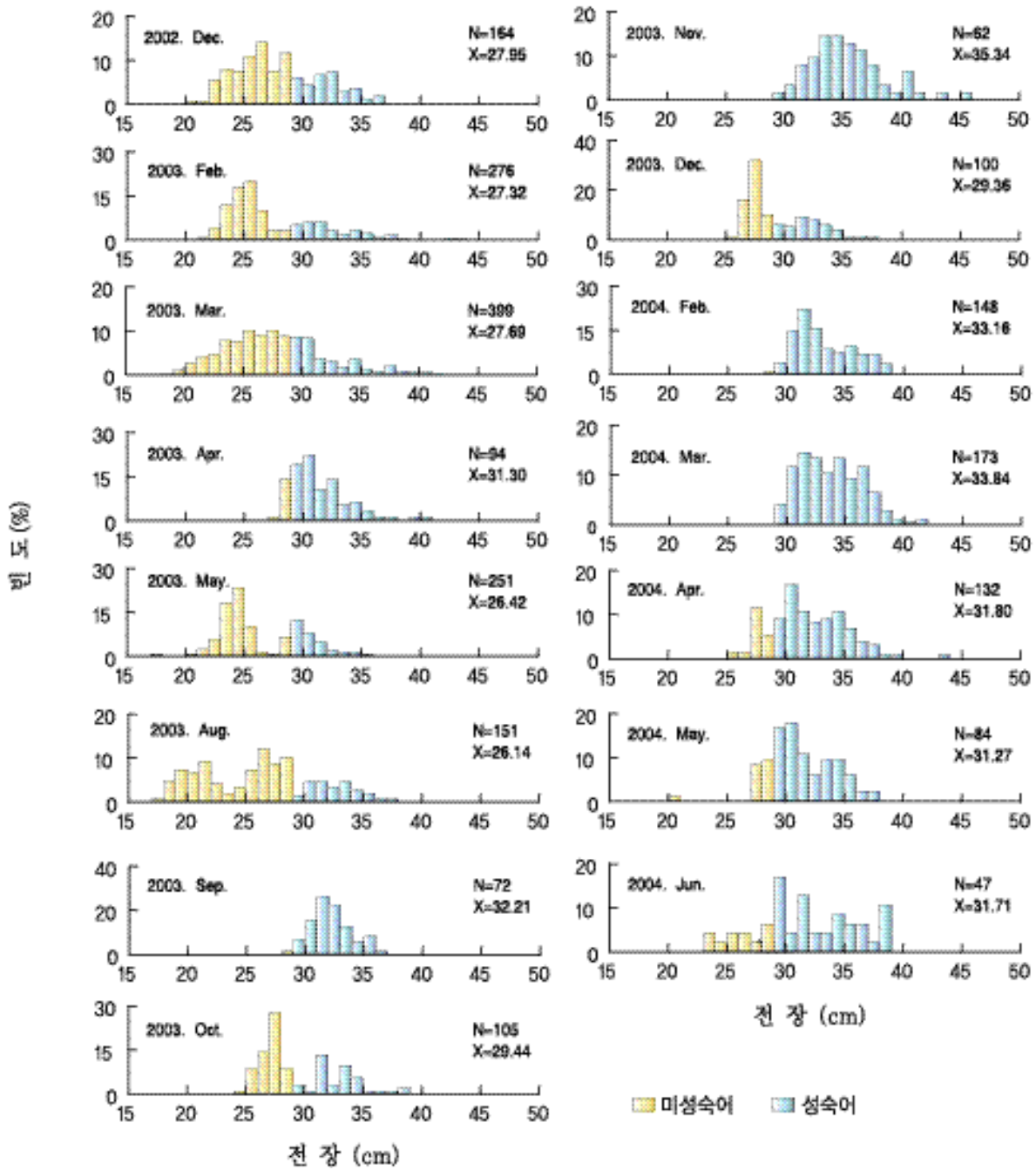


2-45. 가

가 2002 ( ) 27.95cm ( 164 ), 2003  
 28.24cm ( 1,510 ) , 2004 6 32.67cm ( 584 )  
 가 2002 108 65.9% , 2003 878 58.2%  
 , 2004 6 54 9.25% . 2002 2  
 ~6 61.6~80.5% , 2003 2 ~4  
 30%

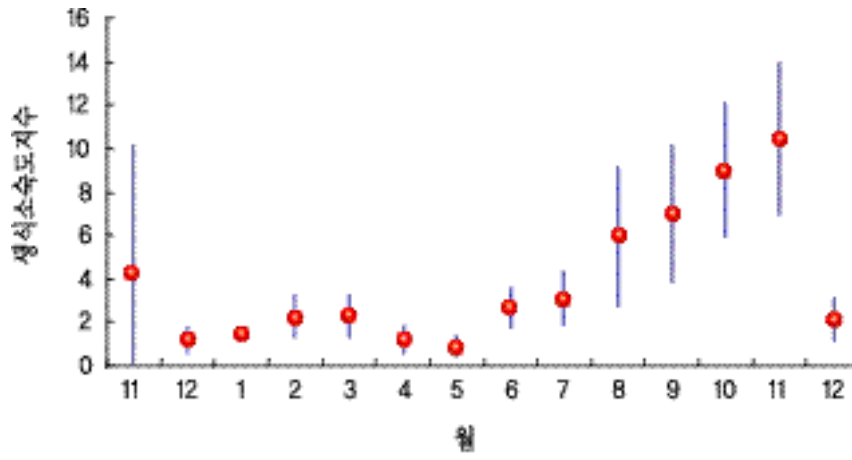


2-46. 가

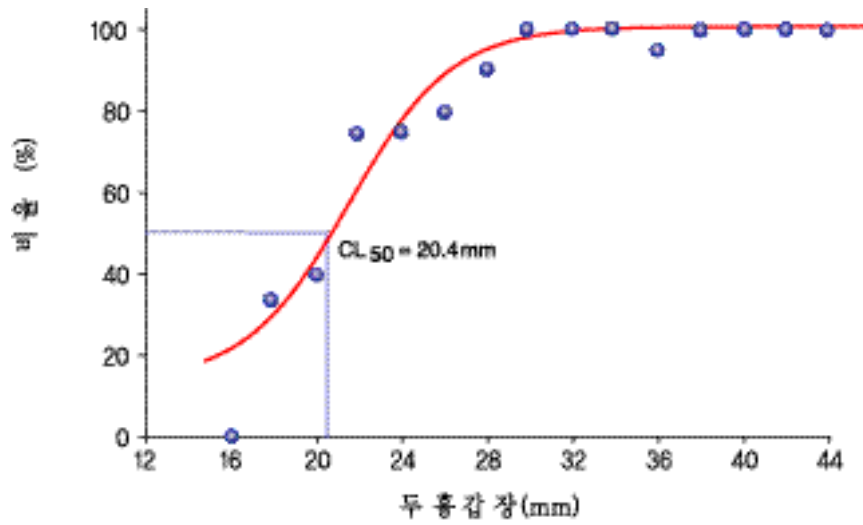


2-47. 가

9~11, 30mm, 95%, 50%, 8~11, 18mm, 30mm, 20.27 mm, 94,400~405,200, 8~11, 9~11, 1, 2



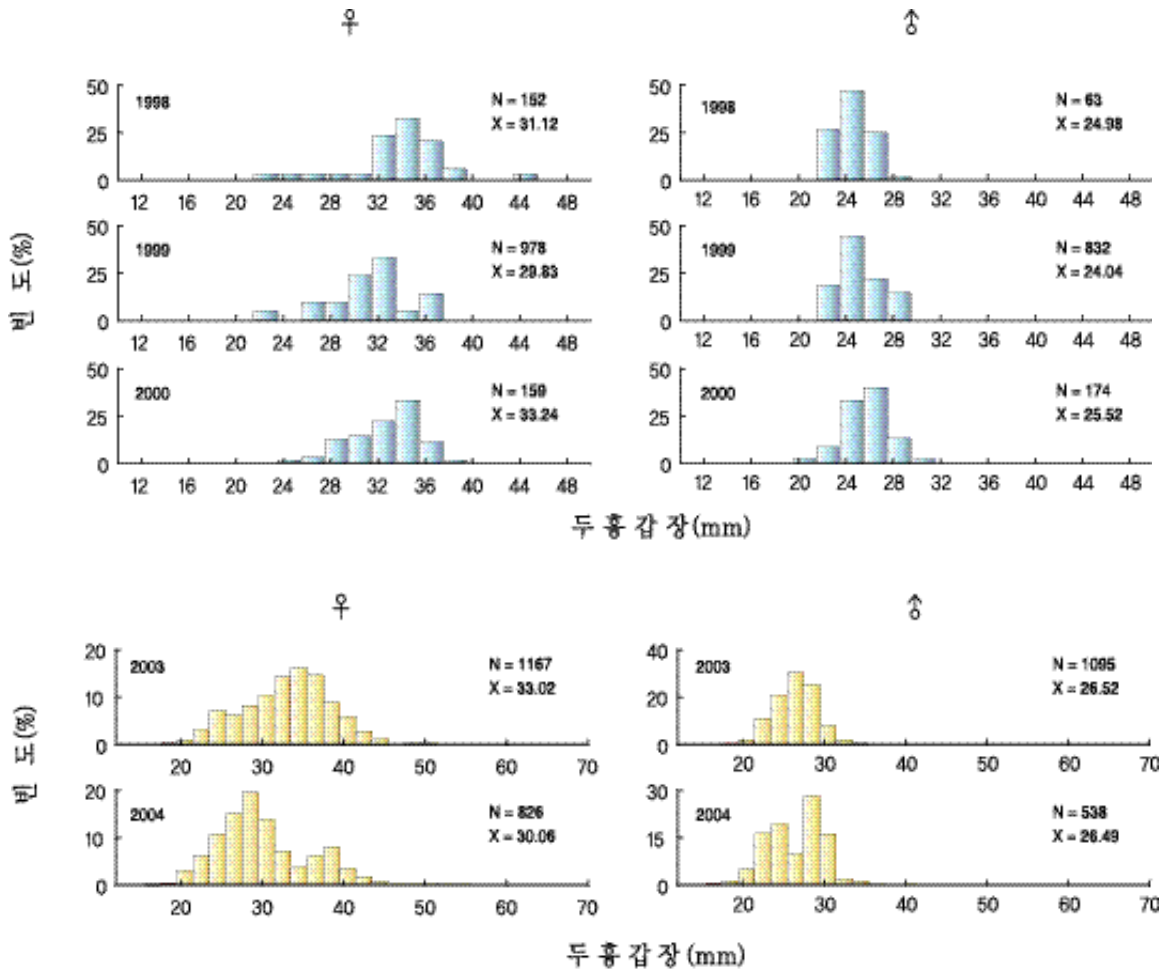
2-48.



2-49.

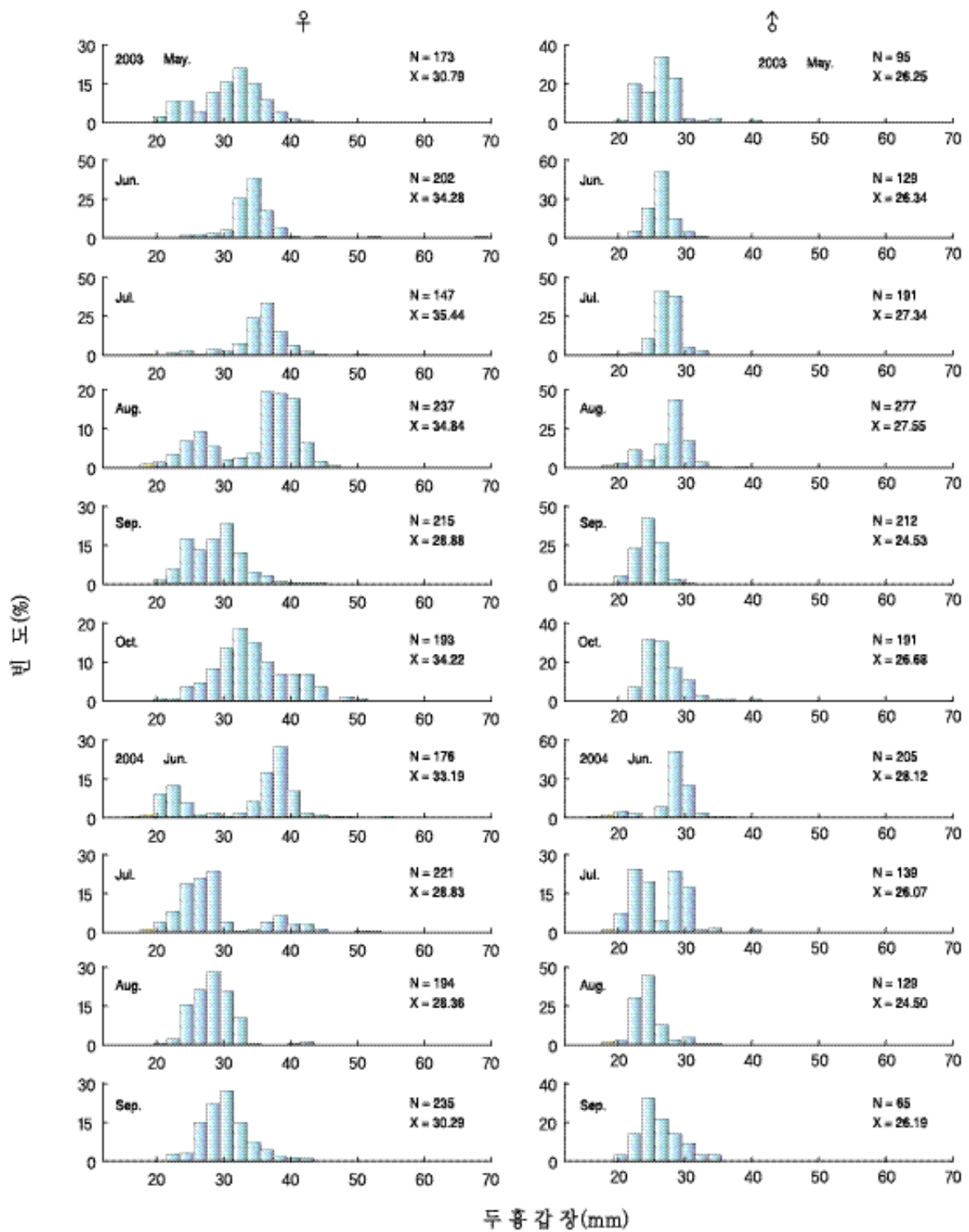


2003 ( ) 33.02mm ( 1,167 )  
 26.52mm ( 1,095 ) , 2004 30.06mm ( 826 )  
 ) 26.49mm ( 538 ) . 2003  
 14 , 31 1.2%, 3.6% , 2004  
 가 30 , 35 3.6%, 6.5% ,  
 가



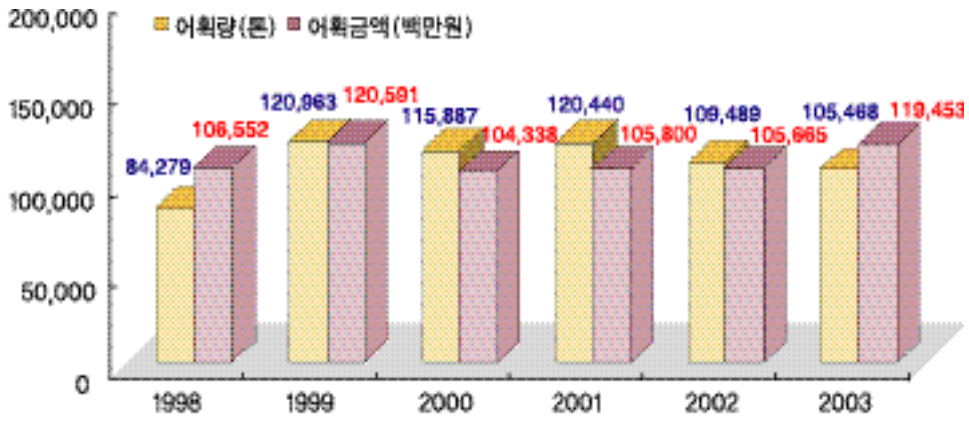
2-50.

( )  
 , CPUE ( )



2-51.

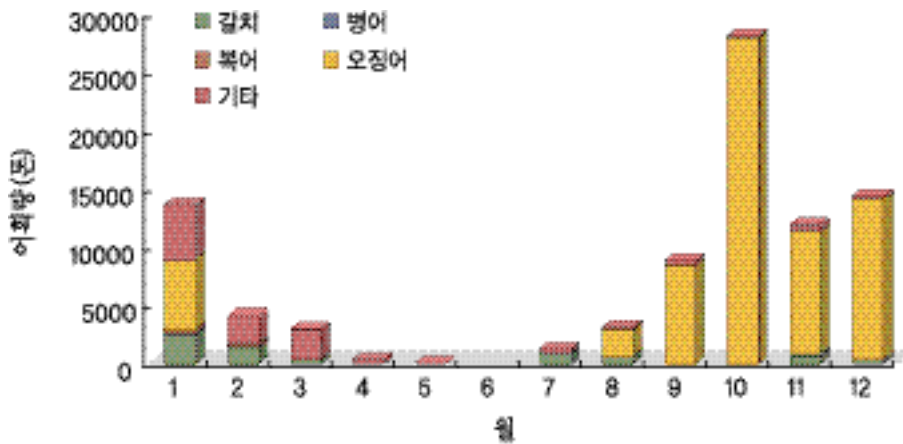
)



( )

2-52.

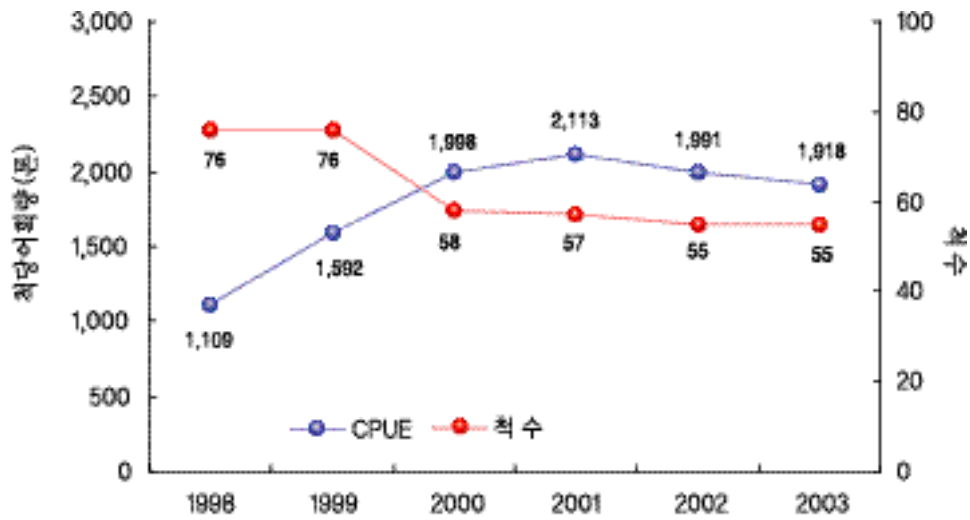
1998 84,279 가 , 1999 120,963 가 , 2003 105,468 가



( )

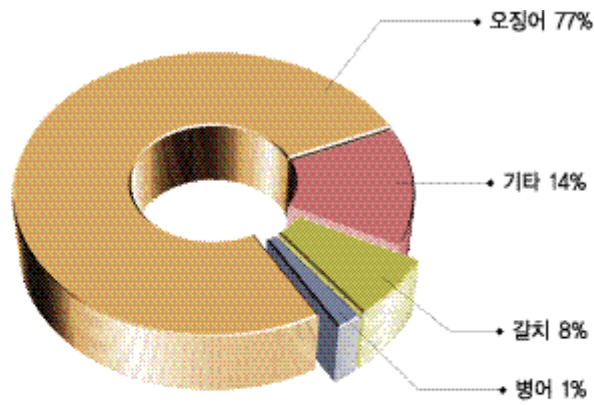
2-53.

2003 10 27,948 가 , 12 14,225 가  
 , 1 13,552 , 11 11,822 , 4, 5, 7, 8 .  
 , 6 .



2-54.

CPUE ( )  
 1998 76 2003 55  
 CPUE 1998 1,109 2001 2,113 가 , 2002  
 2003 1,991 , 1,918

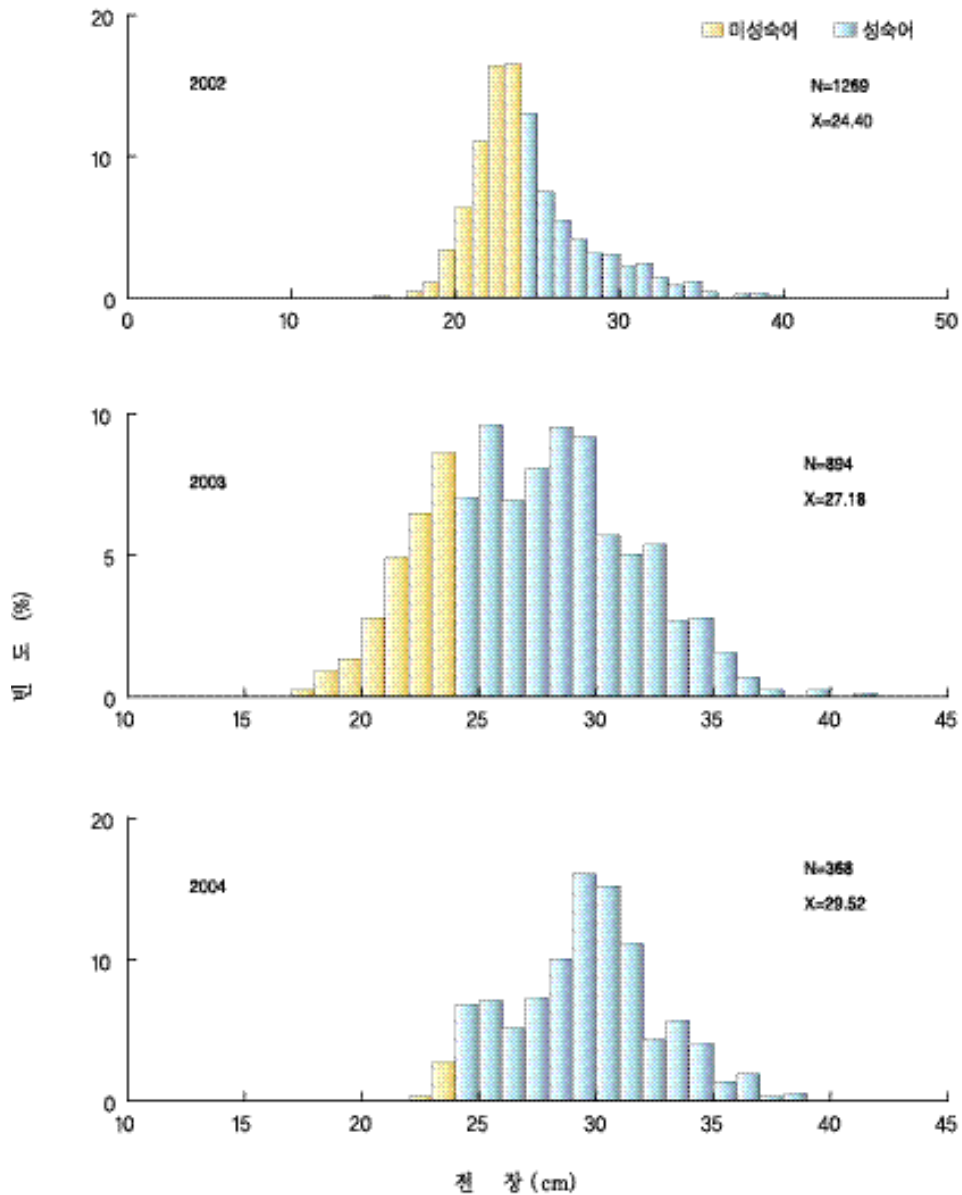


2-55.

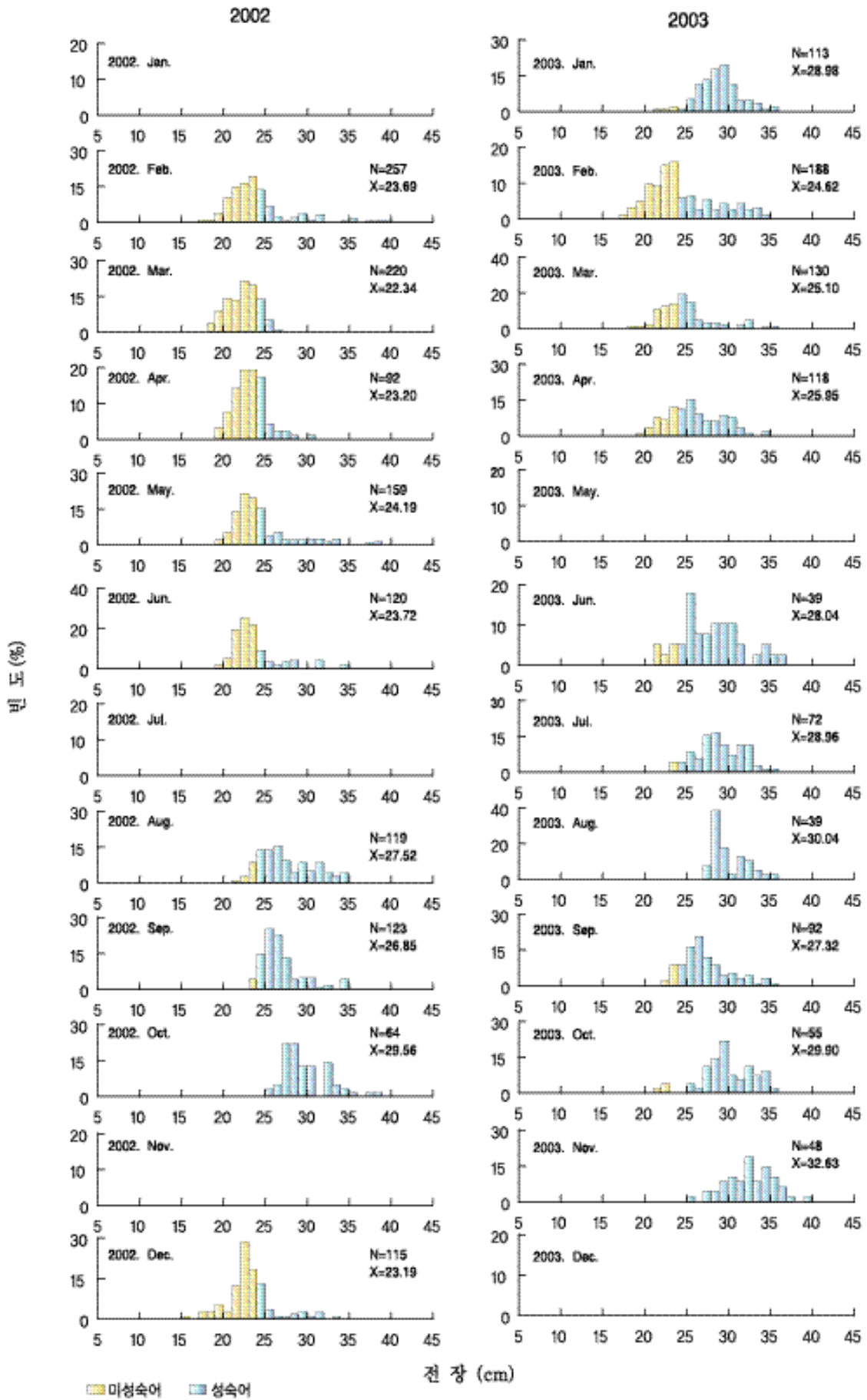
가 77% ,  
 8% , ,  
 가



2002 ( ) 24.40cm ( 1,269 ), 2003  
 27.18cm ( 894 ) , 2004 6 29.52cm ( 368 )  
 가 2002 700 55.2% , 2003 226 25.3%  
 , 2004 6 11 3.0% . 2002 2  
 ~6 61.6~80.5% , 2003 2 ~4  
 30%



2-58.

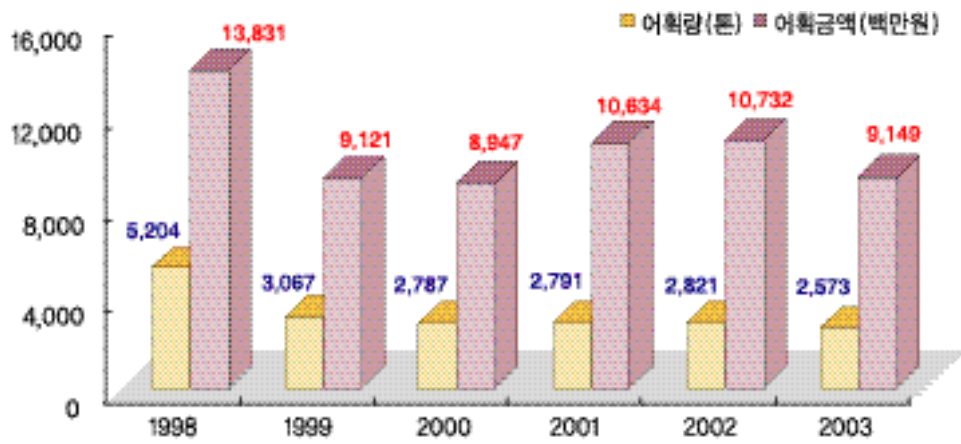


2-59.

					100,000
	, CPUE	1998	1,053	2001	2,151
가 .	가	CPUE	가		가



)

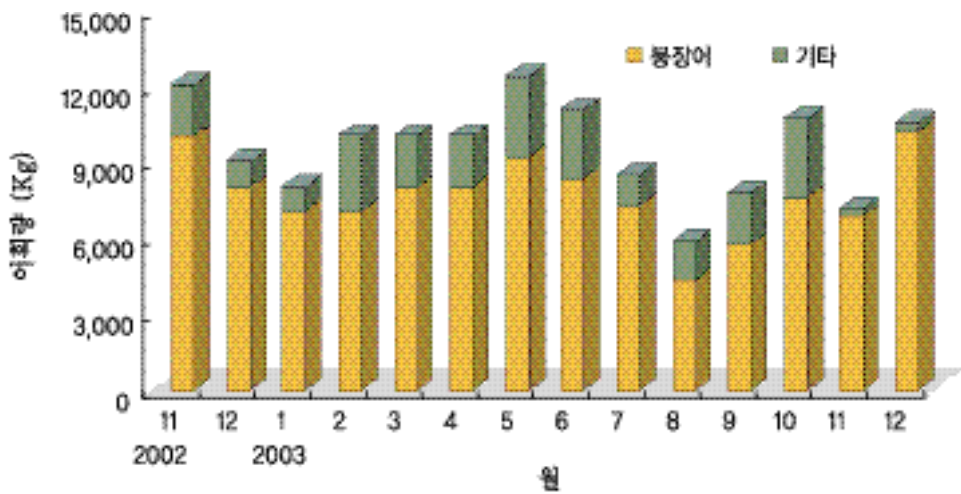


2-60.

( )

1998 5,204 가 ,

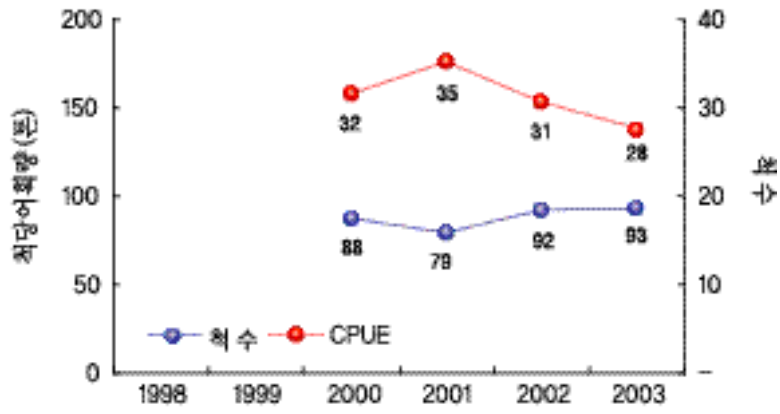
2000



2-61.

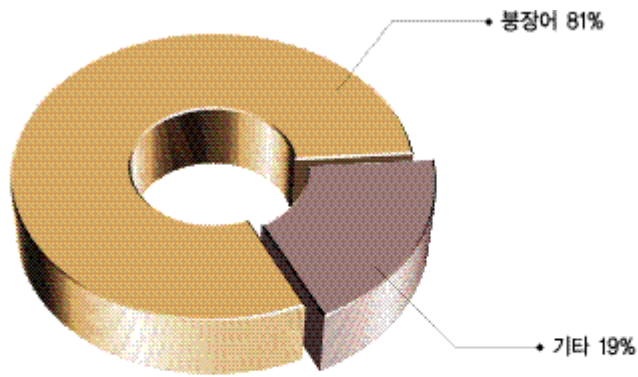
( )

2003 5 12,360kg 가 , 2003 8 5,820kg 가



2-62.

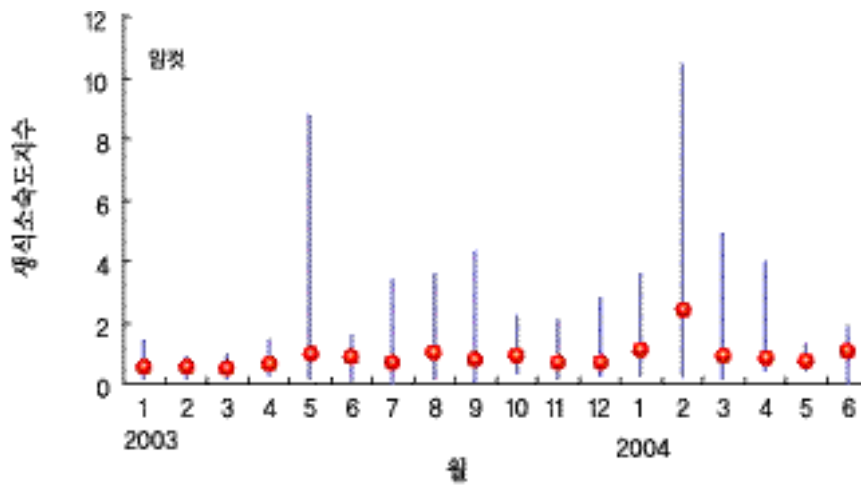
CPUE ( )  
 2000 88 , 2001 79 , 2002 92 , 2003 93  
 CPUE 2000 32 , 2001 35 , 2002 31 , 2003 28



2-63.

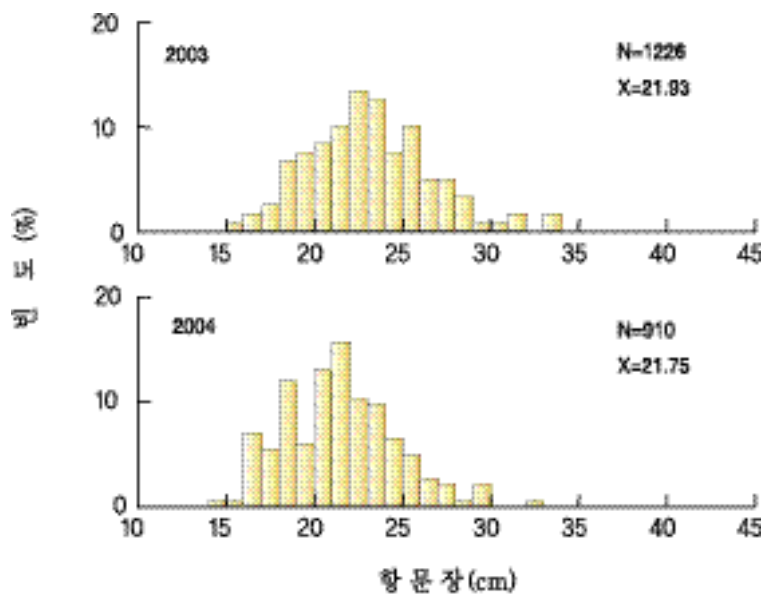
가 81% ,  
 EEZ 94, 95 362

가 가 ,  
 95.1%, 4.9%  
 가 2003 5 2004 2 8.81, 10.40 가 1  
 2~5 가

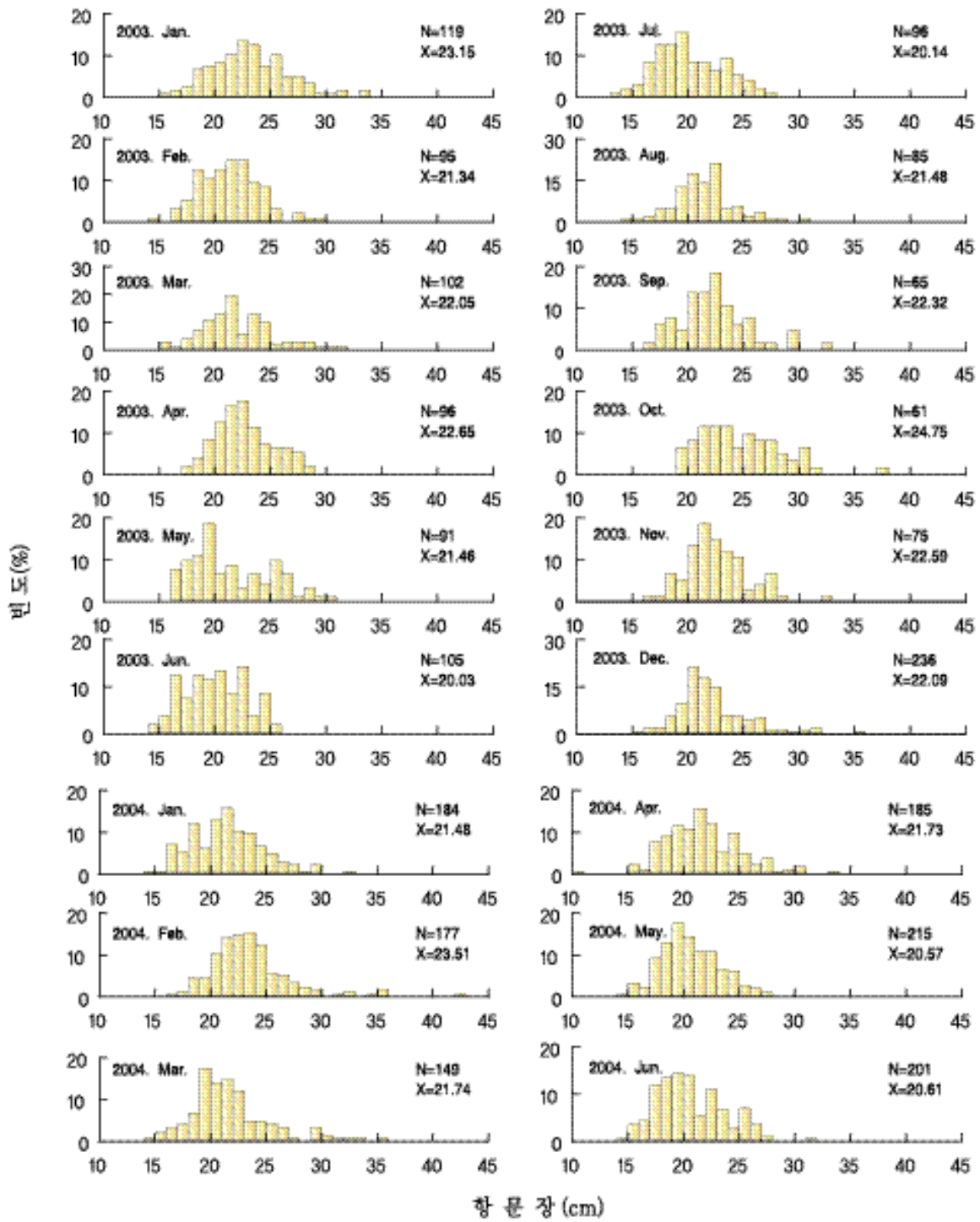


2-64.

2003 ( ) 21.93cm ( 1,226 ) ,  
 2004 ( 1~6 ) 21.75cm ( 9100 ) .



2-65.

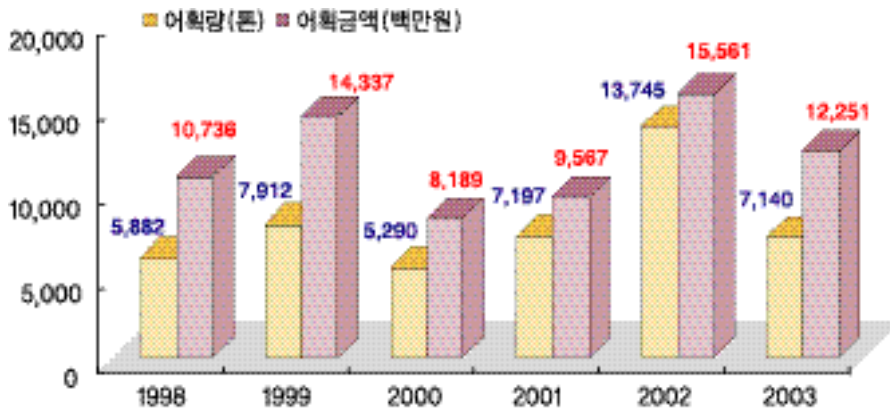


2-66.

CPUE ( )  
362

가 EEZ 94, 95

)

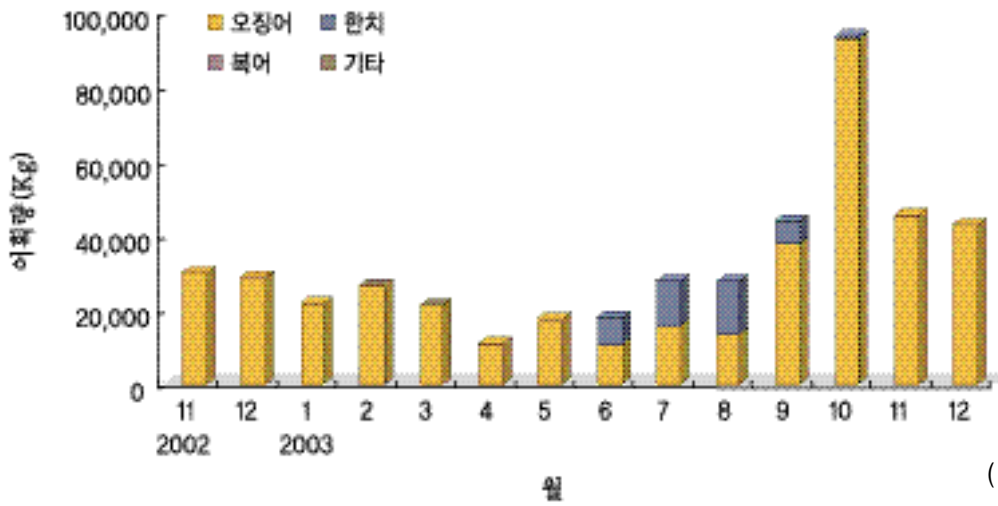


2-67.

( )

2002 13,745 가

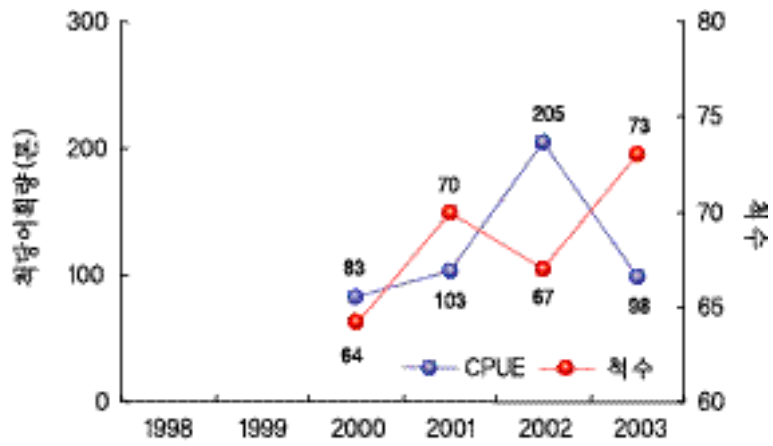
, 2000 5,290 가 .



2-68.

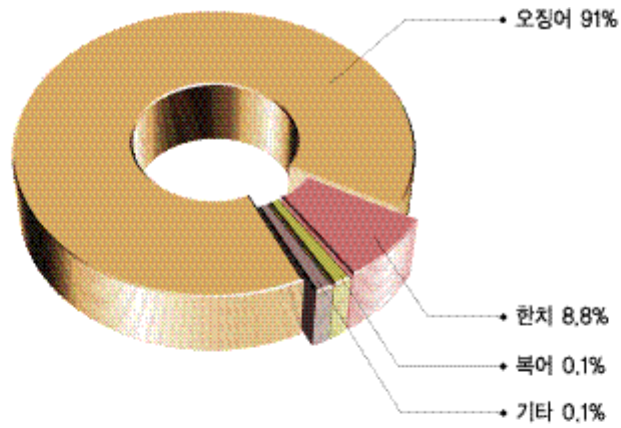
( )

93,587kg 가 , 2003 4 10,980kg 가 , 2003 10



2-69.

CPUE ( )  
 2000 64 2003 73 가  
 CPUE 2000 83 2002 205 가 , 2003 98



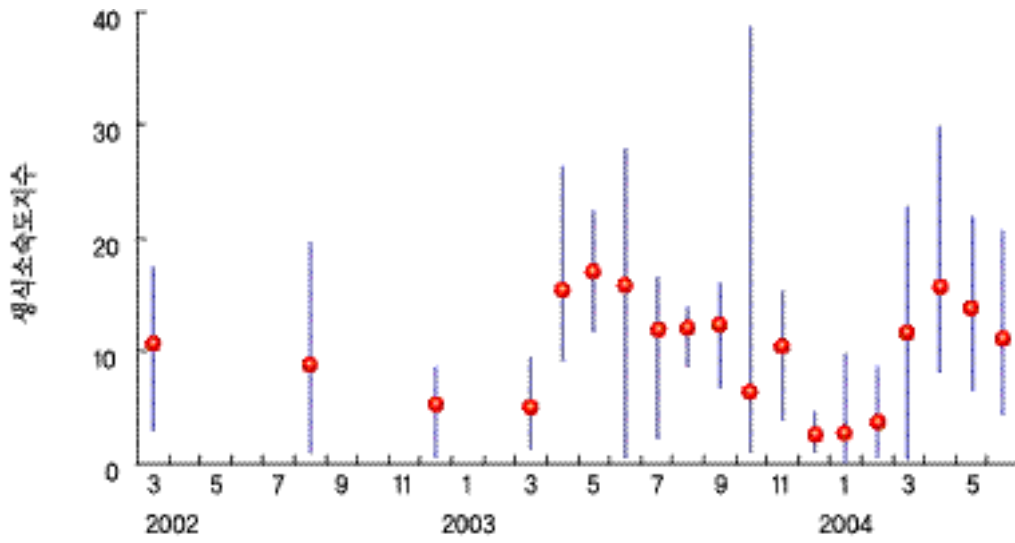
2-70.

가 91%

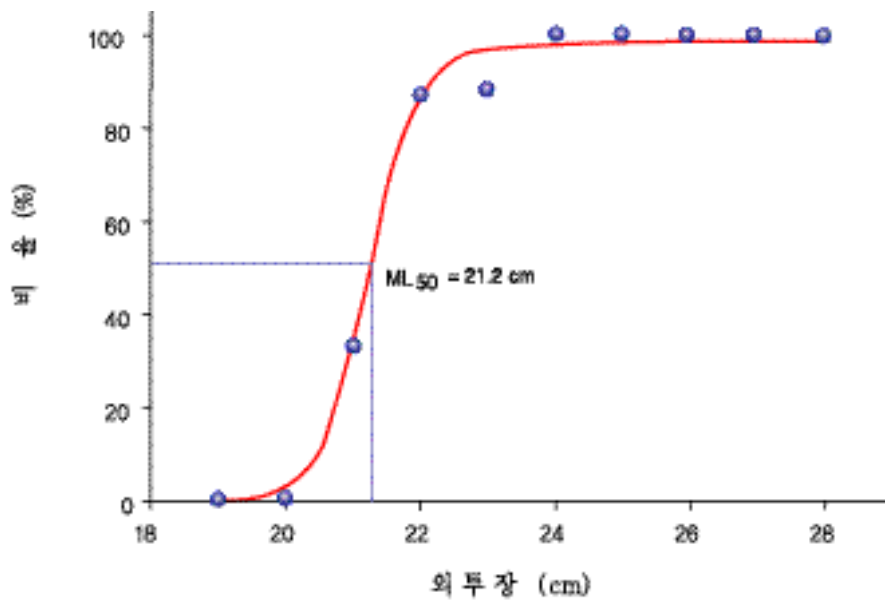
12 - 2

50%

(Mantle Length) 21.2cm

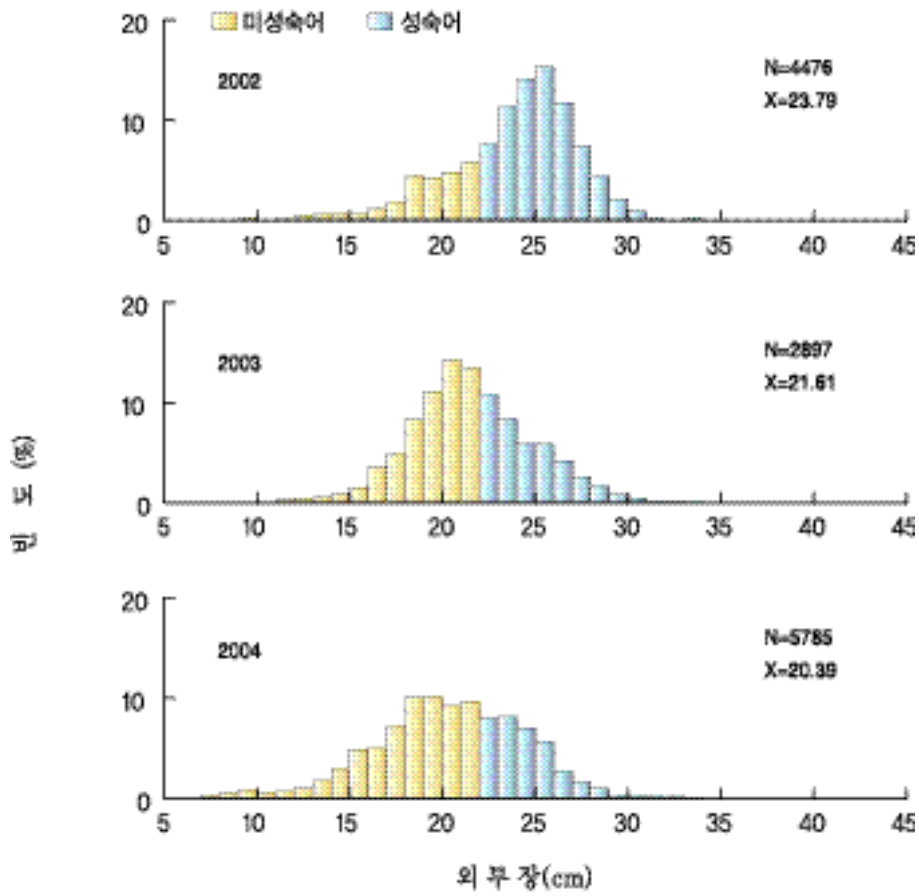


2-71.



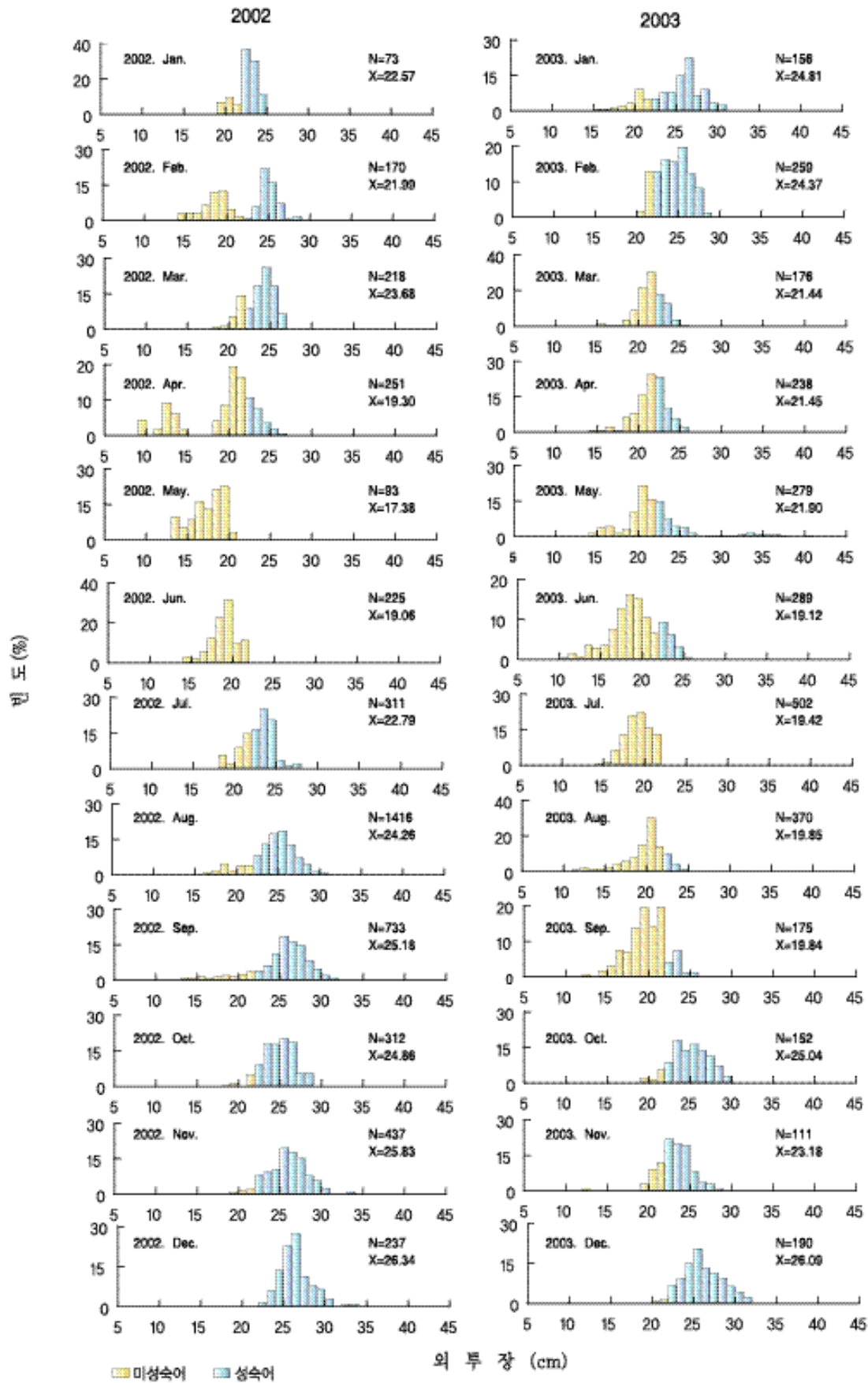
2-72.

2002 23.79cm ( 4,476 ), 2003  
 21.61cm ( 2,897 ) , 2004 6 20.39cm ( 5,785 )  
 . 2002  
 1,128 25.2% , 2003 1,706  
 58.89% , 2004 6 3,751 64.8% .  
 2002 , 2003 10 ,



2-73.

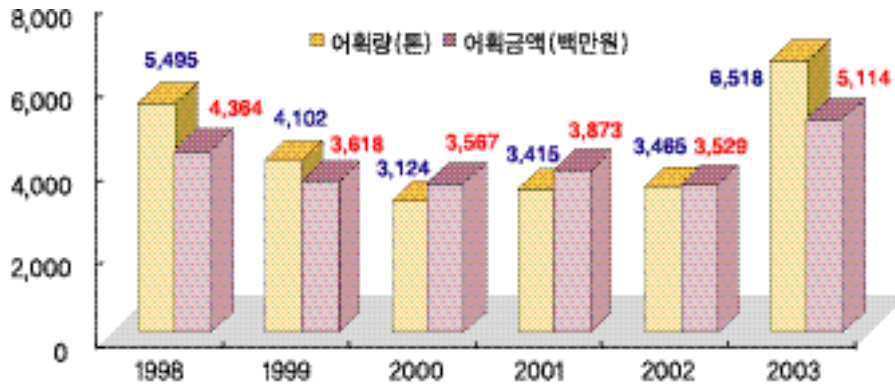




2-7.

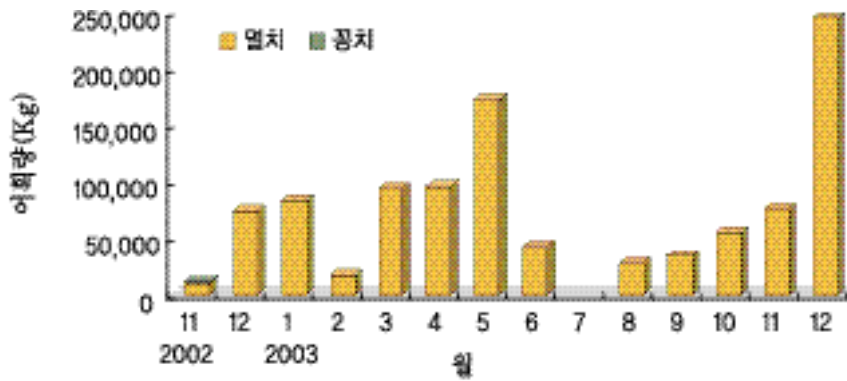
			2001~2003
7,140~13,745	1998~2000	5,290~7,912	.
CPUE ( )		가	
가	2003	CPUE	가

)



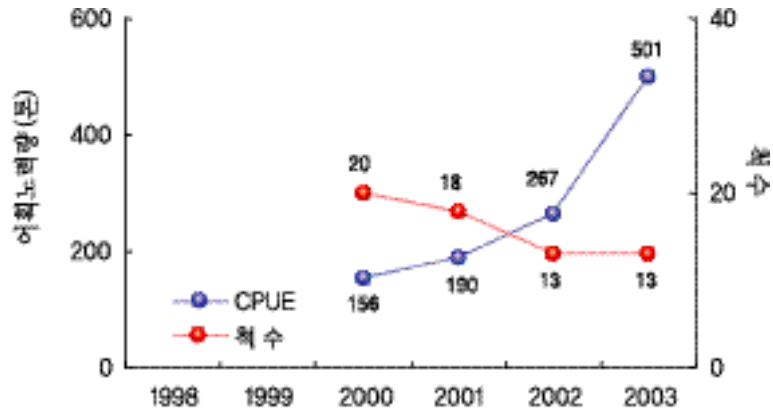
2-75.

2000 3,124 가 , 2003 6,518 가 , 3,618~5,114 .



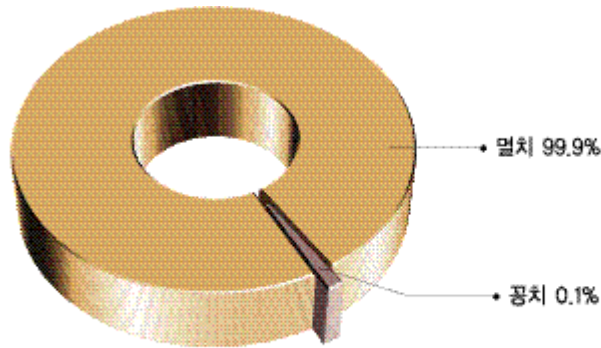
2-76.

2003 12 243,600kg 가 , 2002 11 11,385kg 가 ,



2-77.

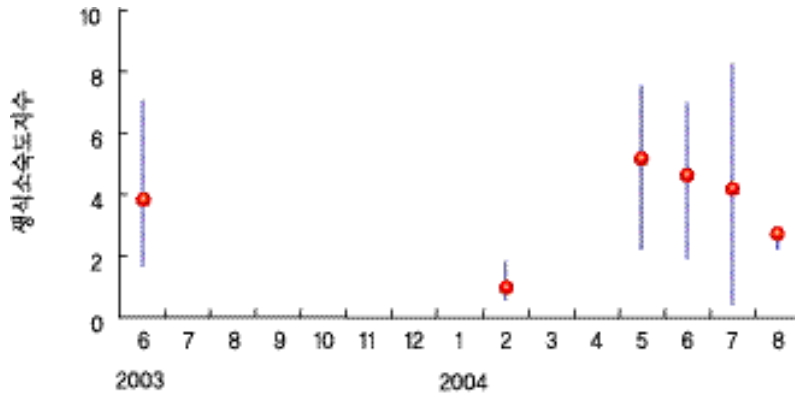
CPUE ( )  
 2000 20 2003 13 CPUE  
 2000 156 가 2001 190 , 2002 267 , 2003 501  
 가



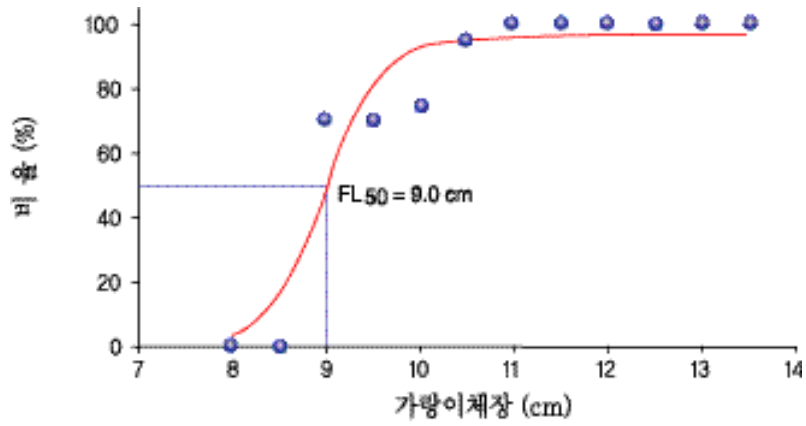
2-78.

가 99.9%

50% 가 4~8 , 5~7  
 (Fork Length) 9.0cm

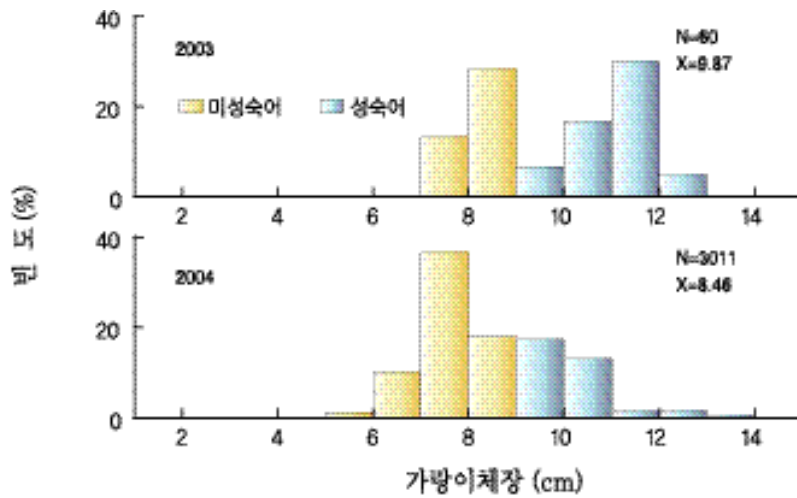


2-79.

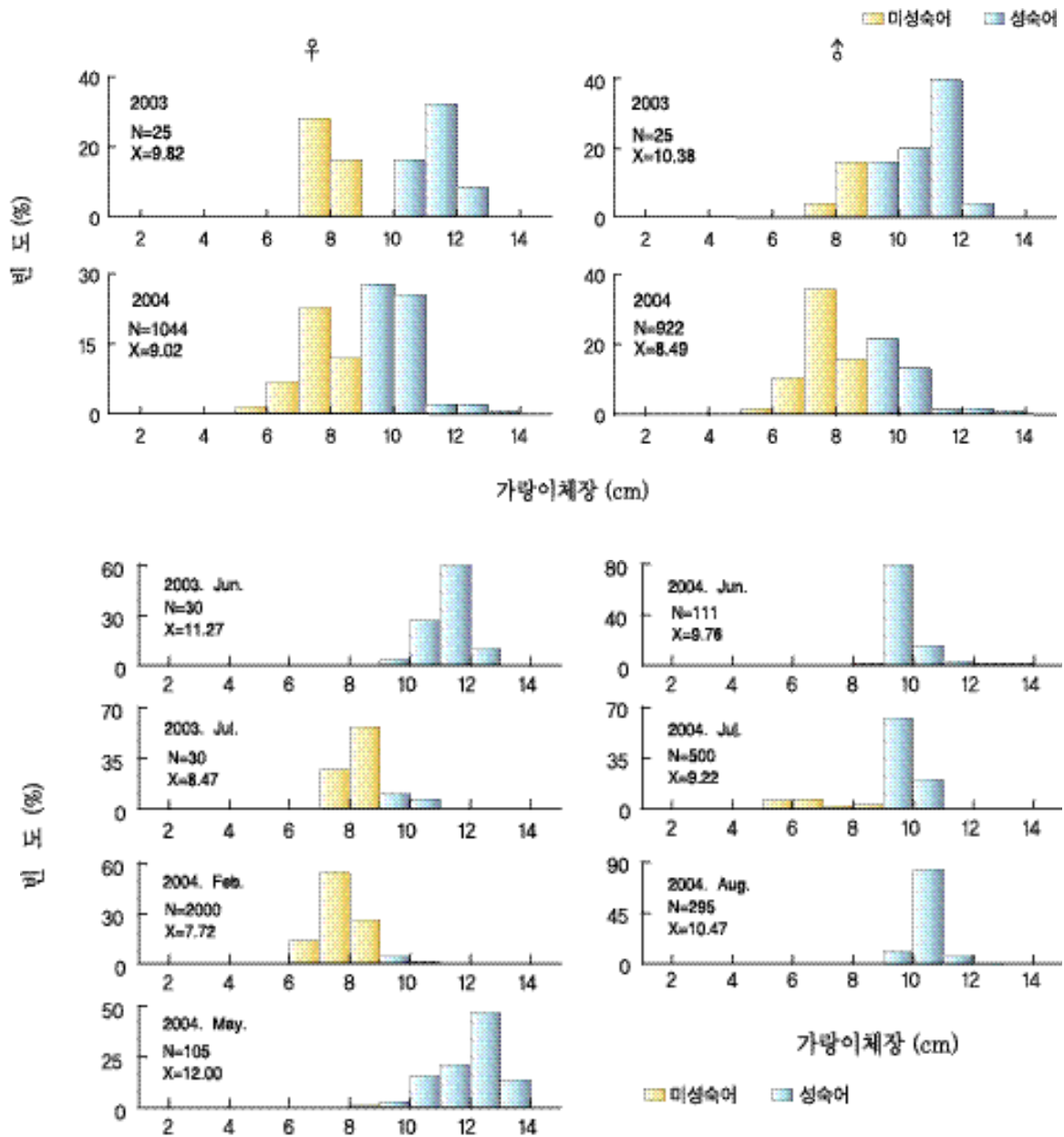


2-80.

2003 (가 ) 9.87cm ( 60 ) , 2004  
 8.46cm ( 3,011 ) . 2003  
 41.7% , 2004 226 25.3% , 2004  
 6 1,987 65.9% . 2 가  
 5~8 가 .



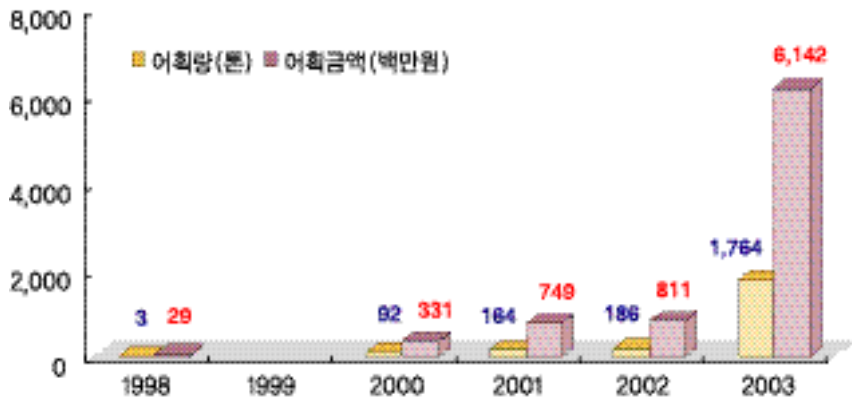
2-81.



2-82.

3,415 , 3,465 , 2001, 2002  
 CPUE ( )가 가 , 2003 6,518

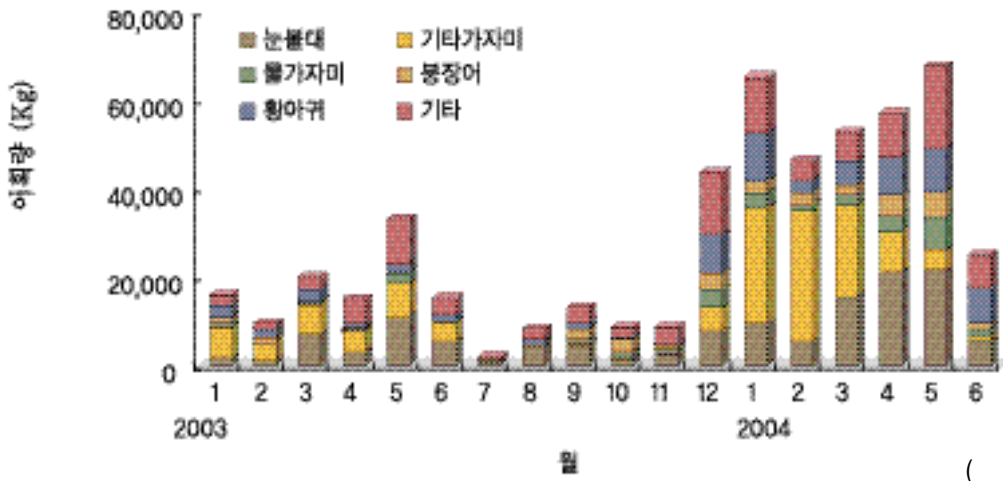
)



( )

2-83.

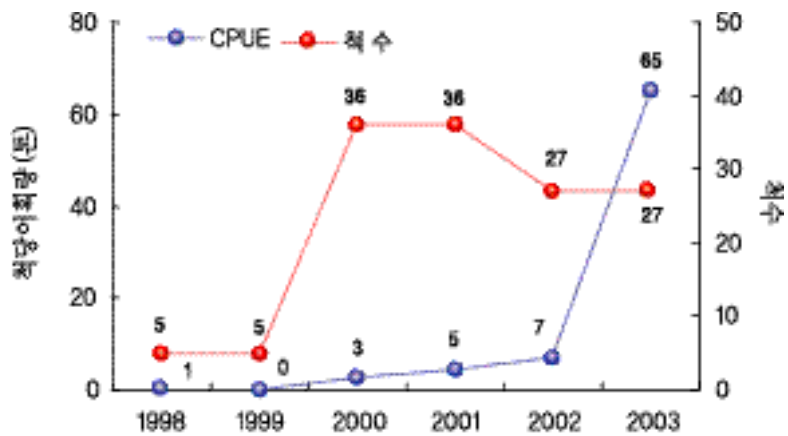
1999  
 , 2000 92 , 2001 164 , 2002 186  
 2003  
 1,764



( )

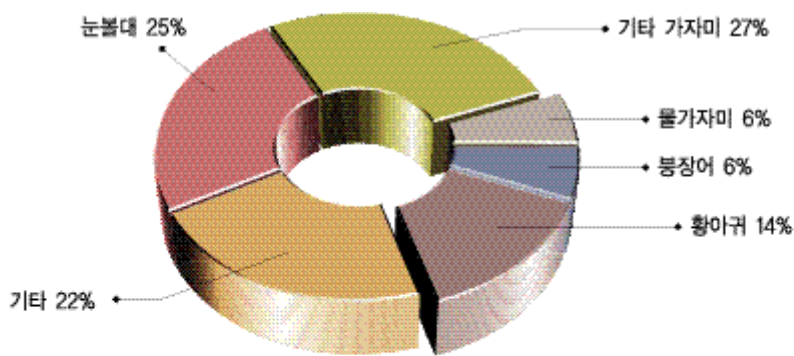
2-84.

2004 5 1 67,748kg, 65,361kg , 2003 7  
 1,953kg 가 , 2004 2003 .



2-85.

CPUE ( )  
 1998 , 1999 5 2000 2001 36  
 , 2002 , 2003 27 . CPUE 1998 1 , 2000 3 , 2002 7  
 , 2003 가 65 .



2-86.

가 25%,  
 14%, 가 가 6% .

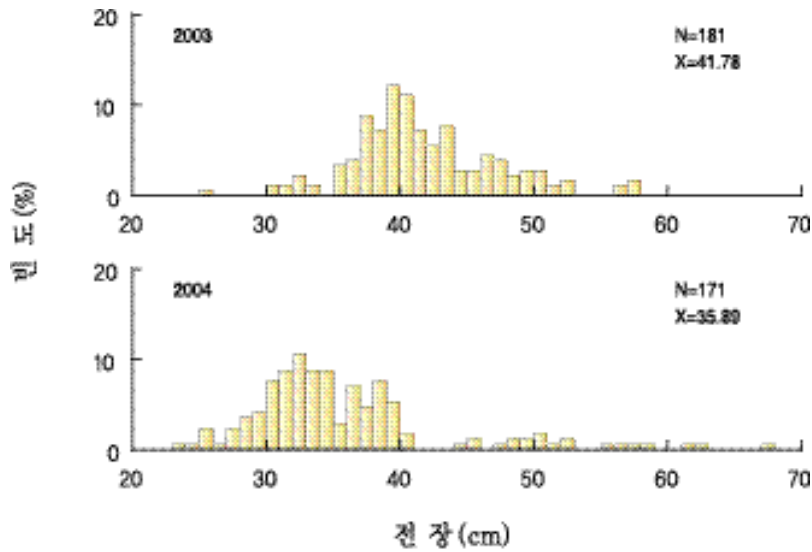
( )





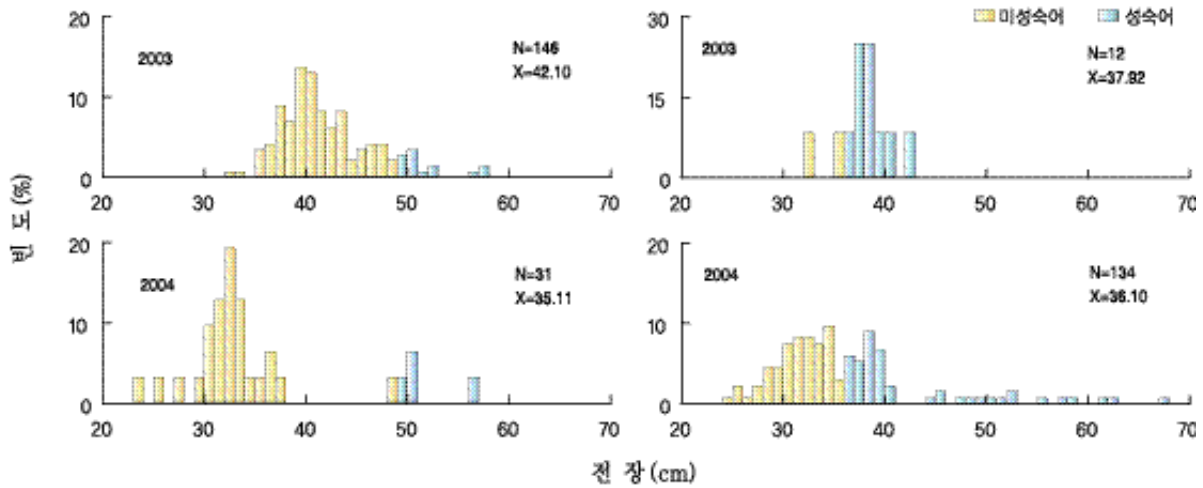
( ) 2003 42.1cm( 146 ) , 2004 35.11cm( 31 ) . 2003 37.9cm( 12 ) , 2004 36.1cm( 134 ) .

2003 131 87.9% , 2004 27 87.1% , 2003 2 16.7%, 2004 79 58.9% .



♀

♂

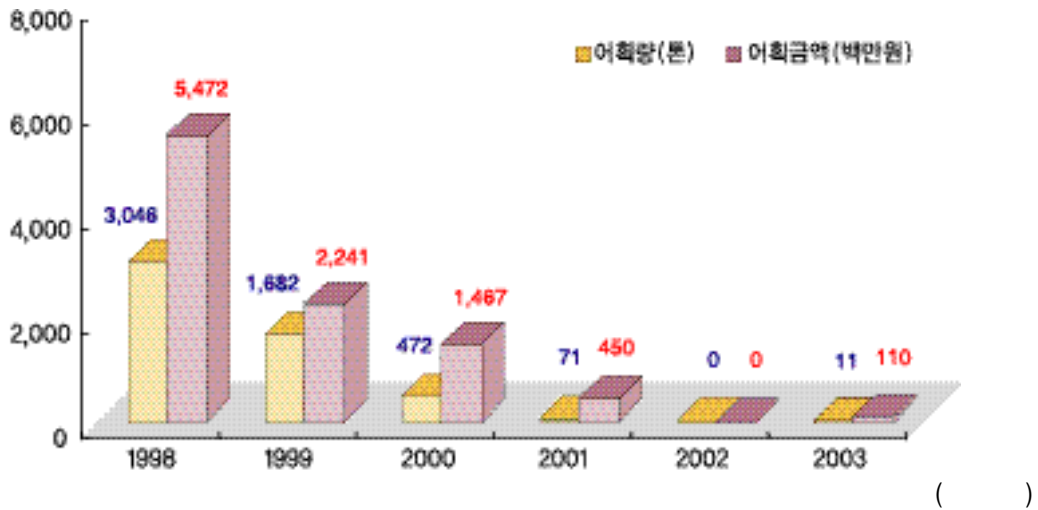
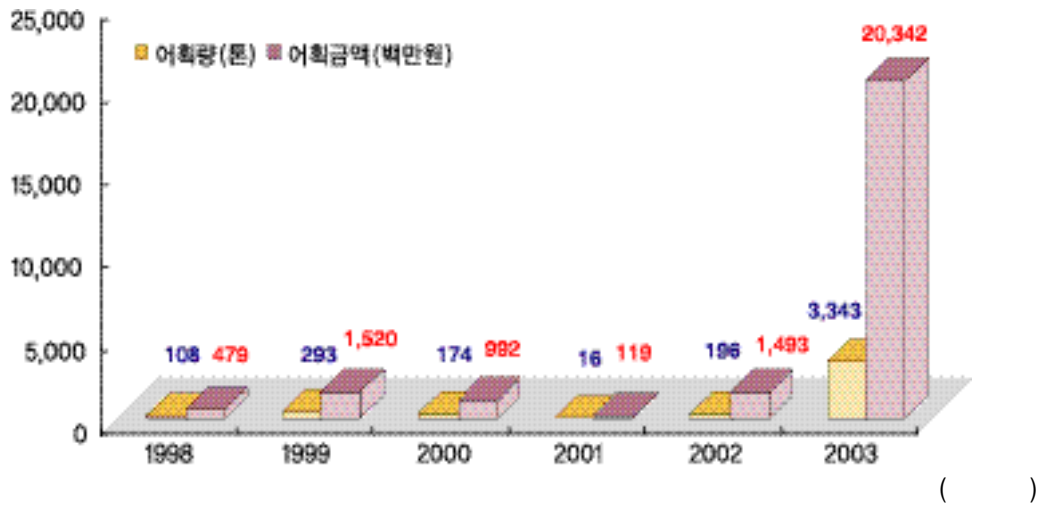


2-89.

가

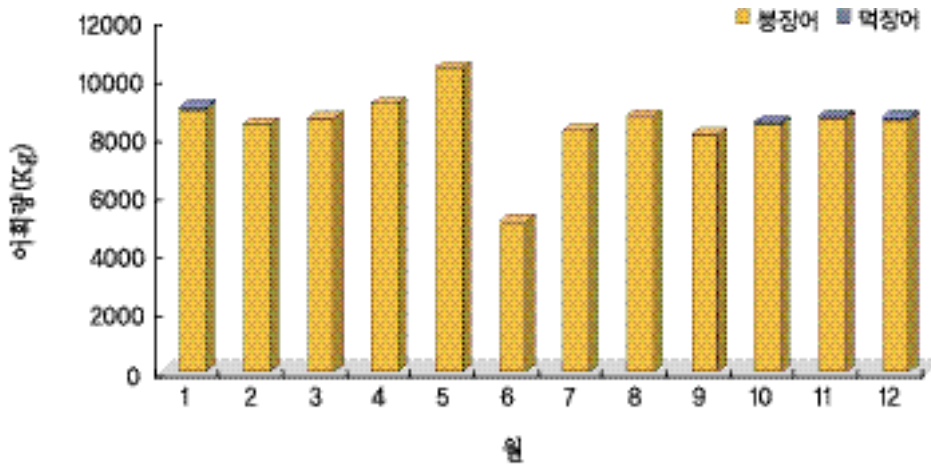
2003 1,764 가 , CPUE 가 .  
가27 .

)



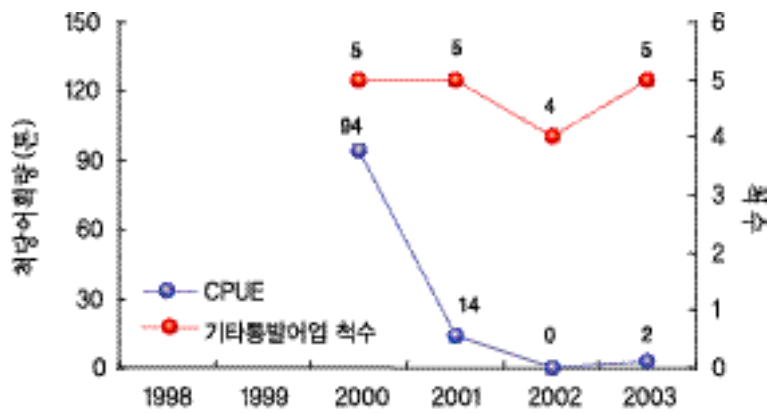
2-90.

1998 108 , 1999 293 , 2000 174 , 2001 16 ,  
 2002 196 , 2003 3,343 가 .  
 1998 3,046 , 1999 1,682 , 2000 472 , 2001 71  
 , 2002 0 , 2003 11



2-91.

2003 5 10,360kg 가 , 2003 6 5,110kg 가 .



2-92.

CPUE ( )

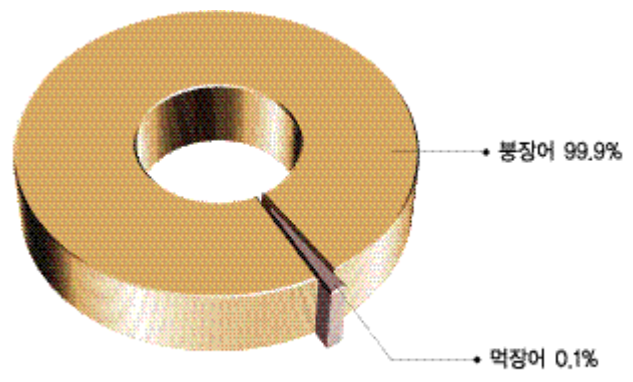
1998 39 2003 7 . CPUE

1998 2002 1~15 2003 478

가 .

2000 3 2003 5 , CPUE 2000

157 2003 2 .



2-93.

가 99.9%

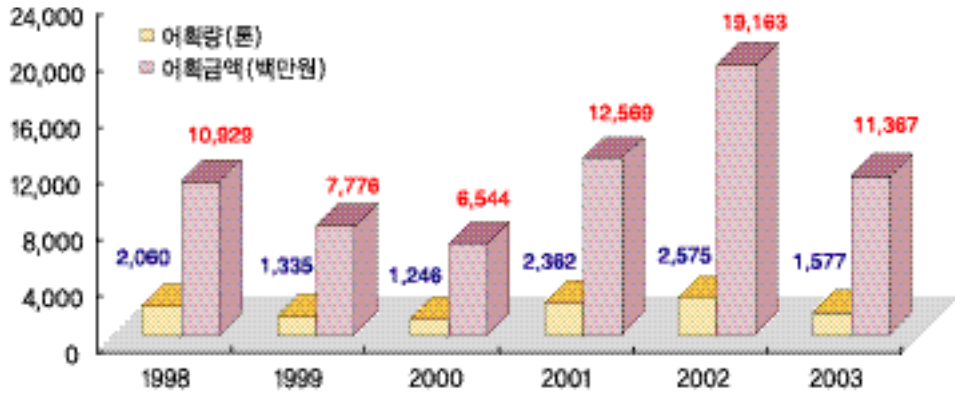
2003

CPUE

가

2)  
가)

(CPUE)



( )

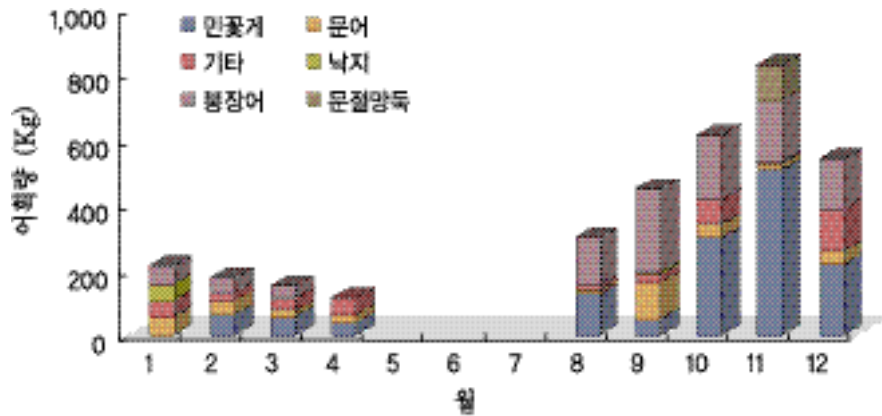
2-94.

. 2002 2,575

가

, 2000 1,246

가



( )

2-95.

1

11

824kg

가

, 4 109kg

가

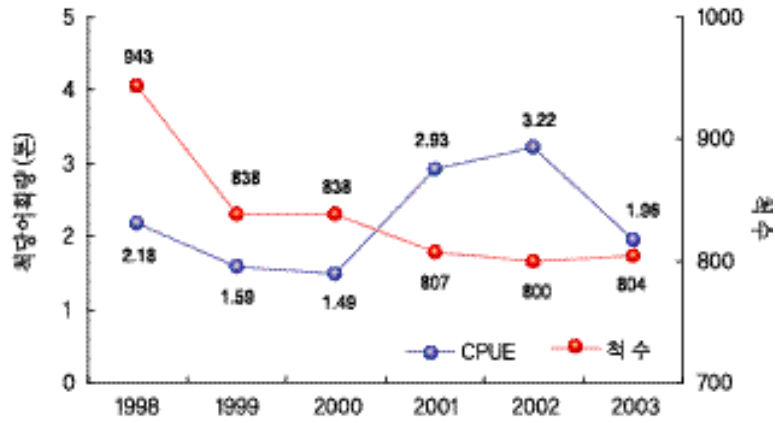
. 9

가

, 1

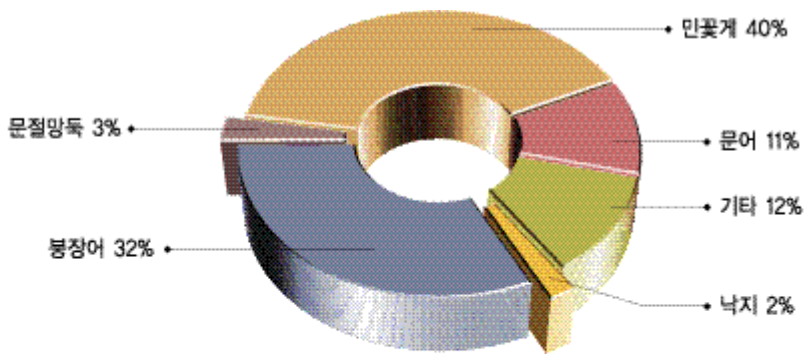
4

5~7



2-96.

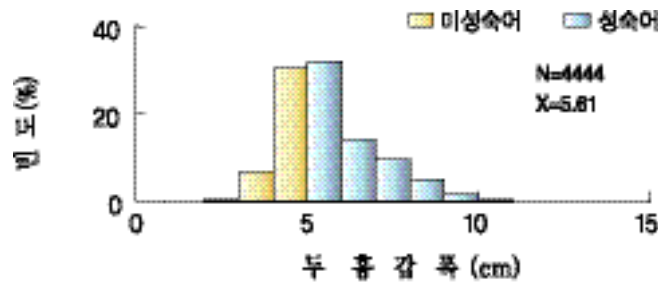
가 1 , CPUE 1998 2.18 , 1999 1.59 , 2000 1.49 , 2001 2.93 , 2002 3.22 , 2003 1.96



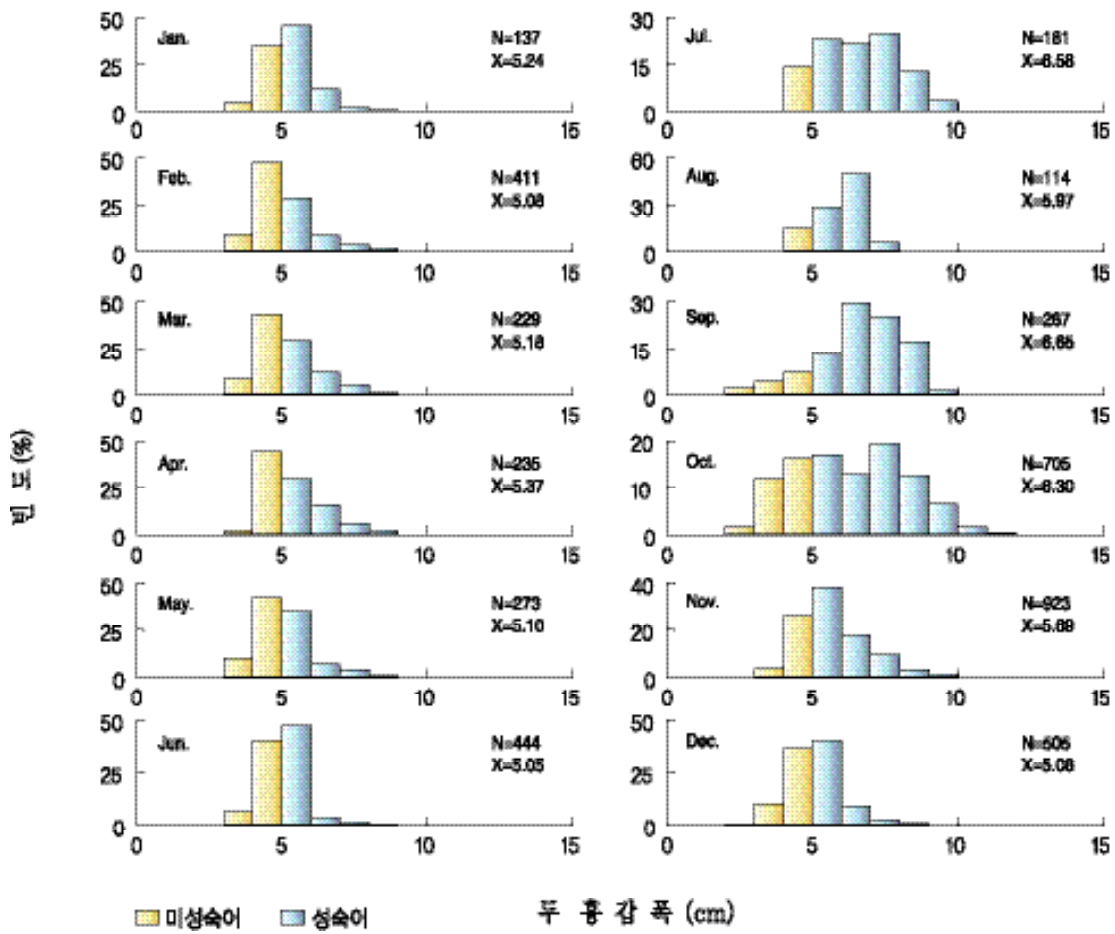
2-97.

가 40% , 32% , 11% , 3% , 99 가

6~8 . 50%  
 (Carapace Width) 5.3cm, 0.6 ,  
 (Carapace Width) 6.2cm, 1.06 .  
 ( 5.3cm) 1,670 37.6% .  
 ( ) 5.61cm ( 4,444 ) ,  
 7~10 5.97 - 6.65cm .



2-98.



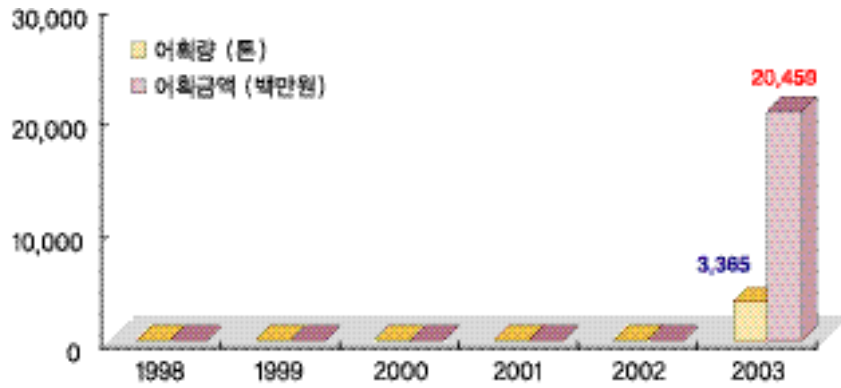
2-99.



가 가  
,

가 , 가 CPUE ( ) 가  
.

)



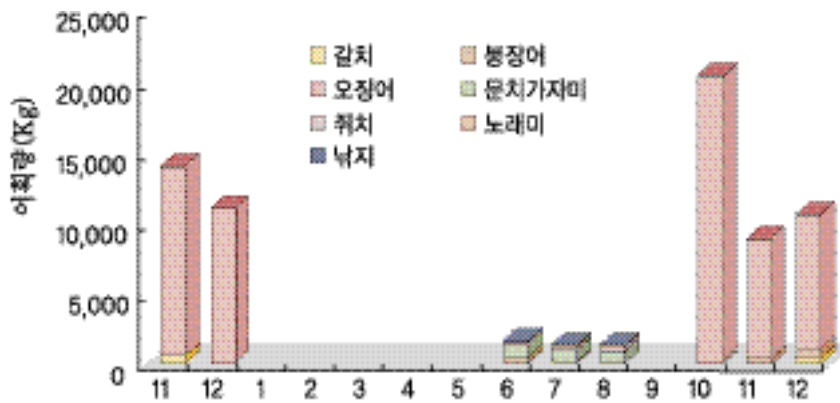
( )

2-100.

2003

2003 3,365 ,

20,459



( )

2-101.

3 10 20,364kg

가 , 1 ~ 5 , 9

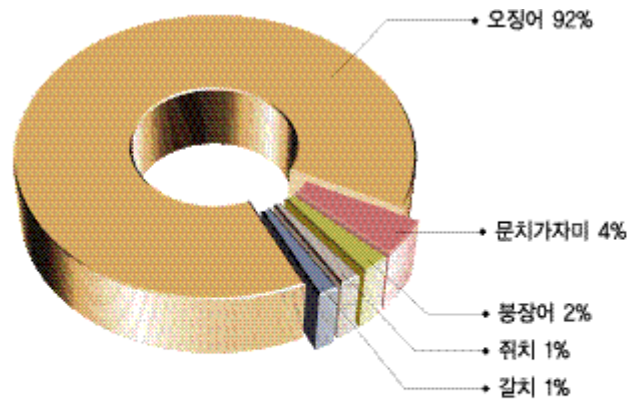
. 6 8

가

CPUE ( ) 2003 1

3,365 , 1,487

2.26

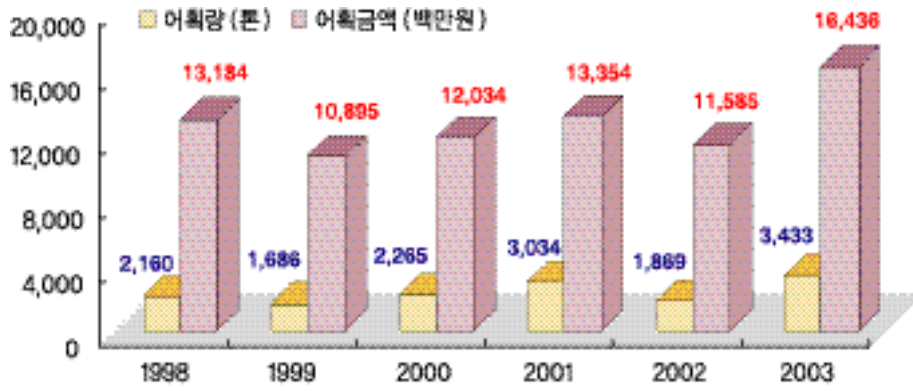


2-102.

가 92% , 가  
 4%, 2%, , 가 1% , ,  
 . 99 .

가 ,  
 .

)



2-103.

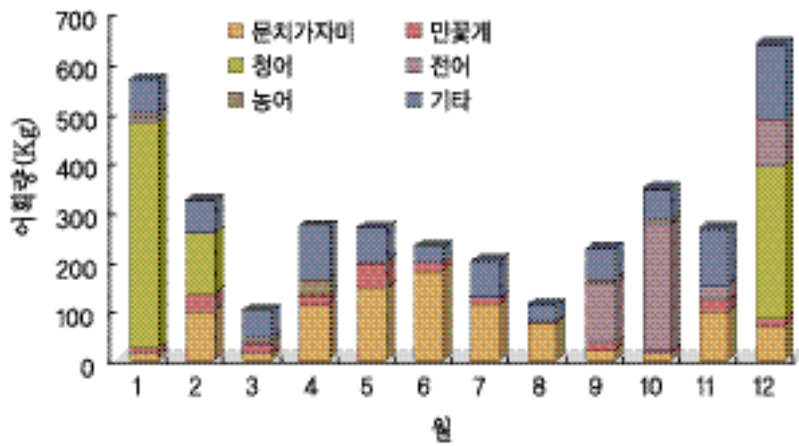
( )

가

, 1999 1,686

가

. 2003 3,433



2-104.

( )

CPUE

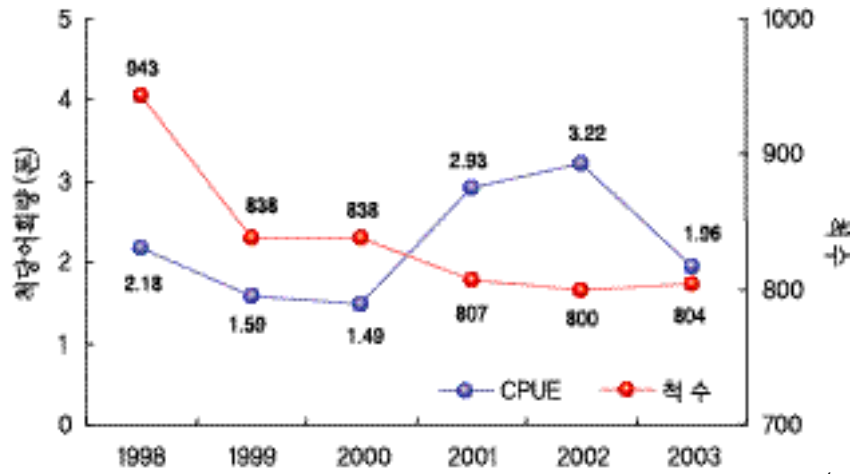
,  
가

가

가

가 3 95kg 가 . 12~2

가 가



( )

2-105.

CPUE

가

가1

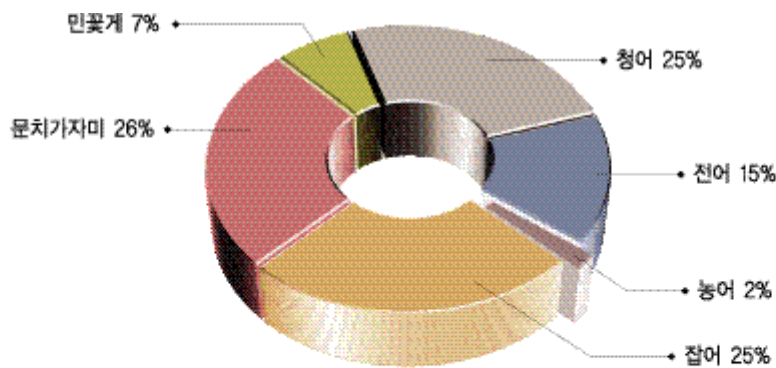
1

가

CPUE ( )

1998 876 2003 795

. CPUE 1998 2.47 , 1999 2.02 , 2000 2.73 , 2001 3.70 , 2002 2.30 , 2003 4.32



2-106.

15%, 7% . 가 26%, 25%, , ,

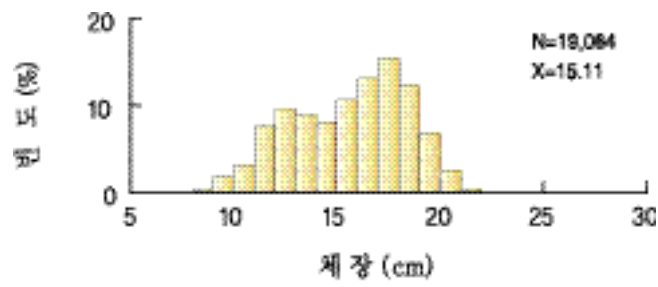
92 가

가

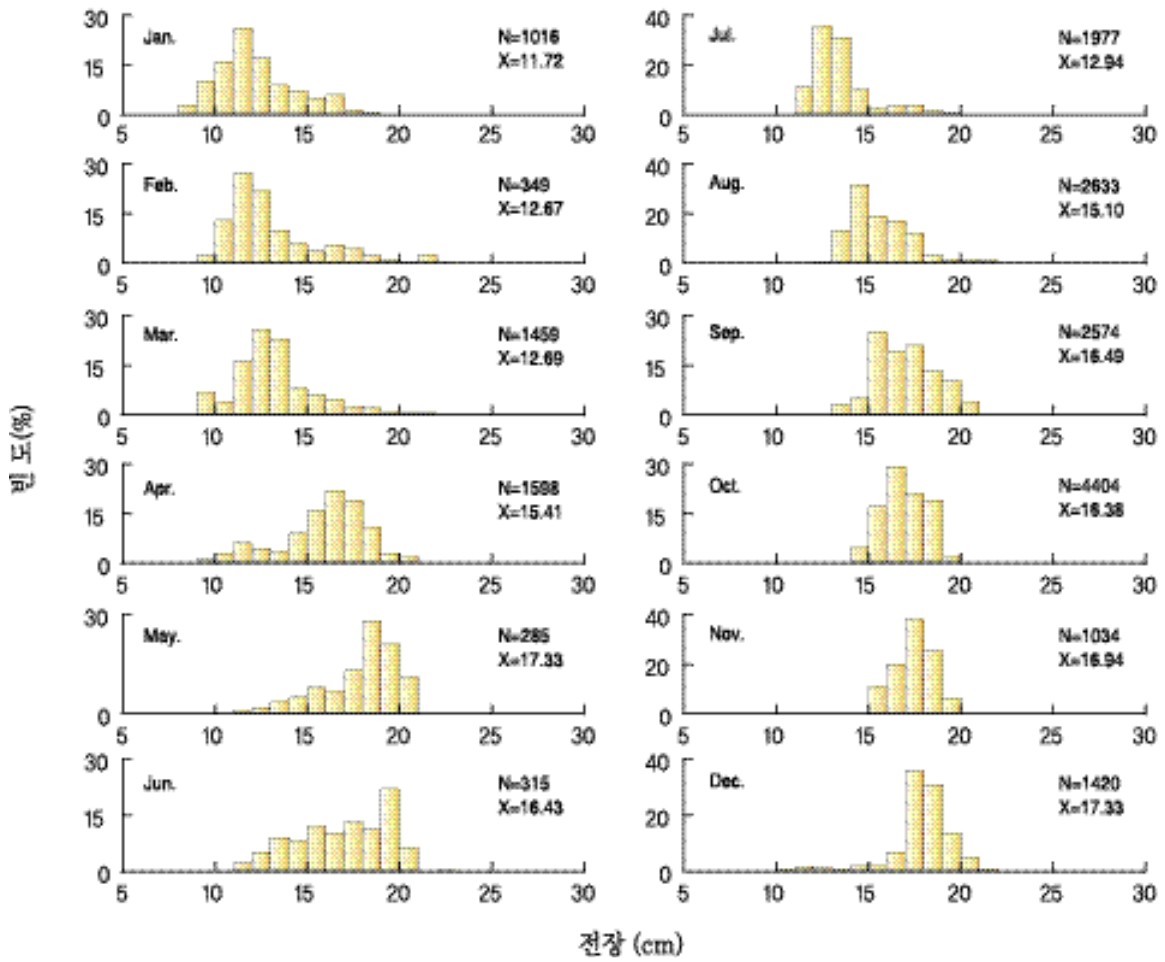
가

가 ( ) 13.38cm(

3,539 ) ,

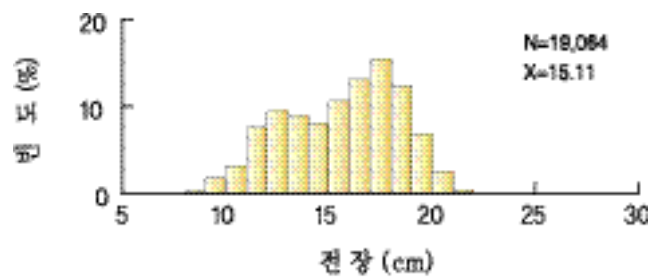


2-107. 가

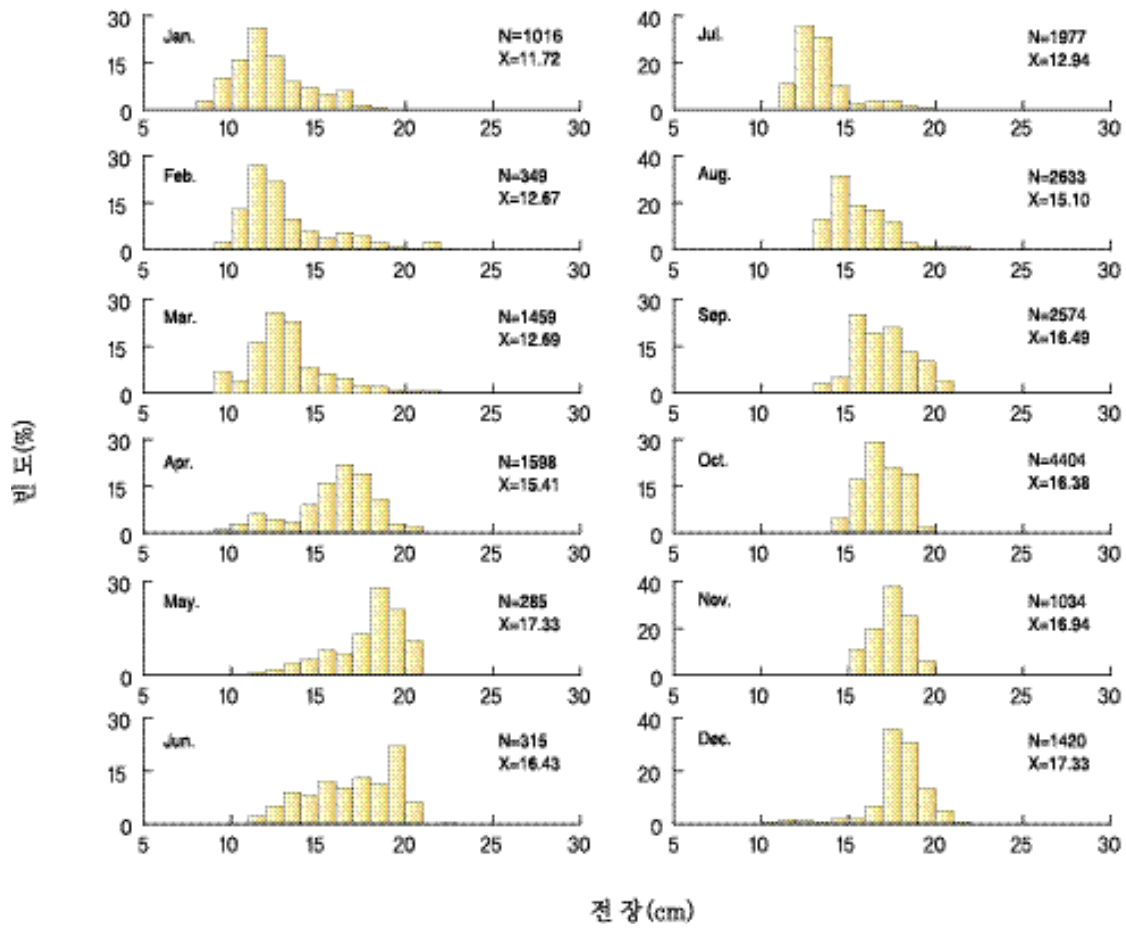


2-108. 가

4~8 , 6~7 .  
 ( ) 15.11cm( 19,064 ) , 1~3 7  
 11.7~12.9cm , 15.1~17.3cm



2-109.



2-110.

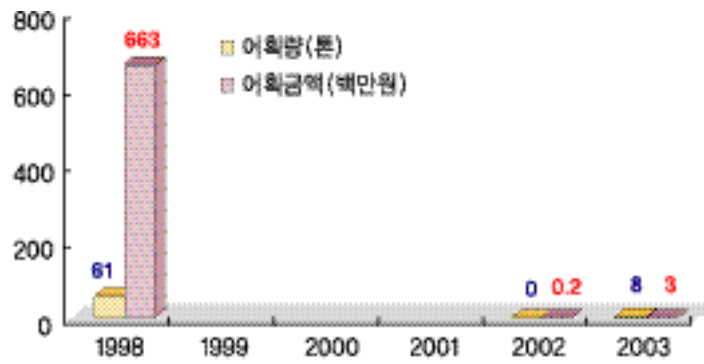
가  
가

, 가

CPUE ( )



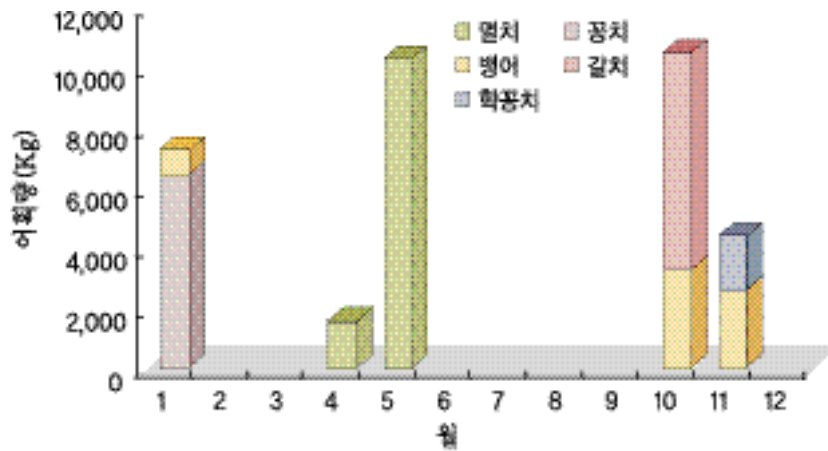
) ( )



2-111.

( )

1998 61 가  
 , 1999 ~ 2001 , 2002  
 가 , 2003 8 .



2-112.

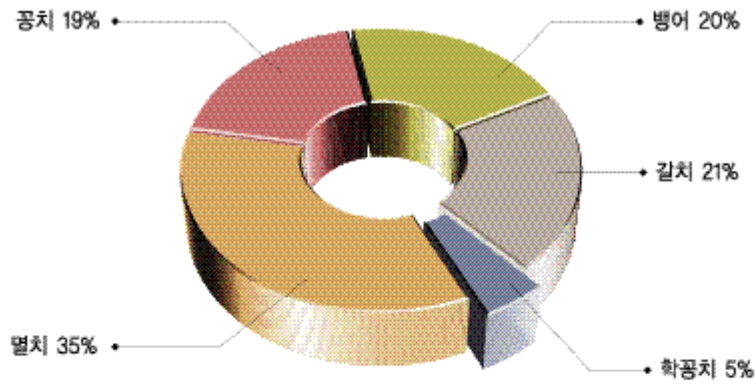
( )

1 10 5  
 10,480 kg, 10,270 kg , 2 ~ 3 , 6~9 , 12  
 4~5 , 10~11 , 1

가 9

CPUE

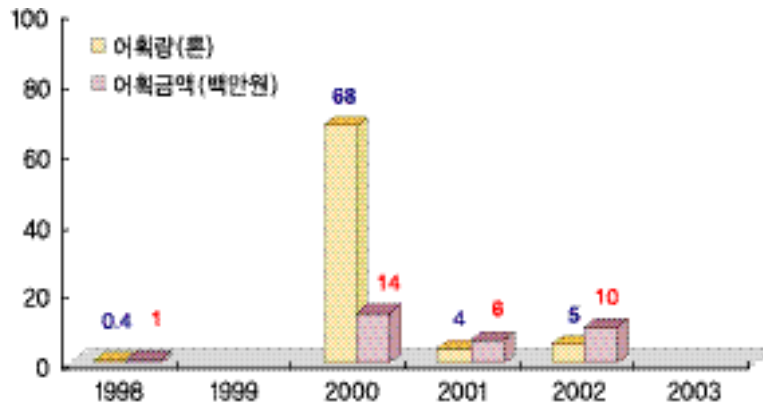
가 .



2-113.

, 35%, 21%, 20%, 19%  
92 .

) ( )

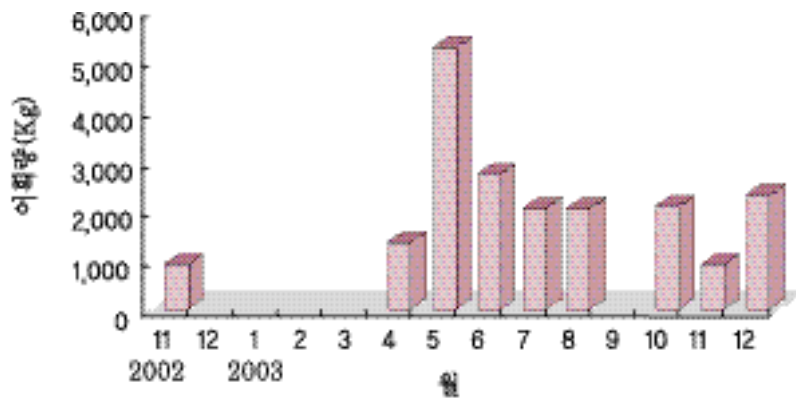


2-114.

( )

가 가

68 가 , 2001 4 , 2002 5 , 2003 . 2000



2-115.

( )

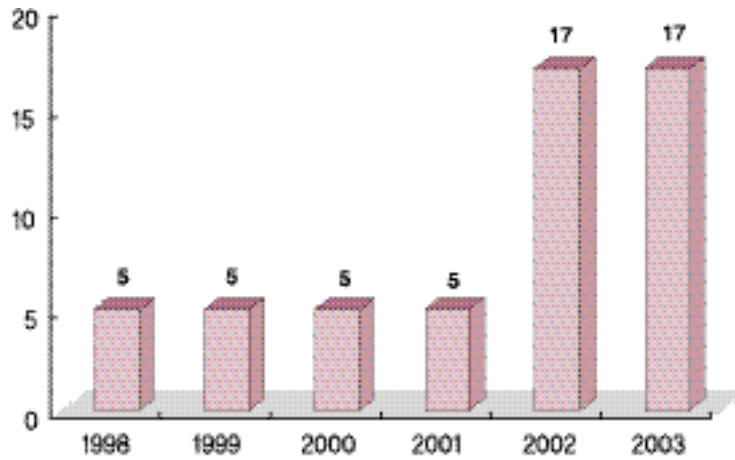
가 , 12~3 9 1 5 5,250 Kg

가

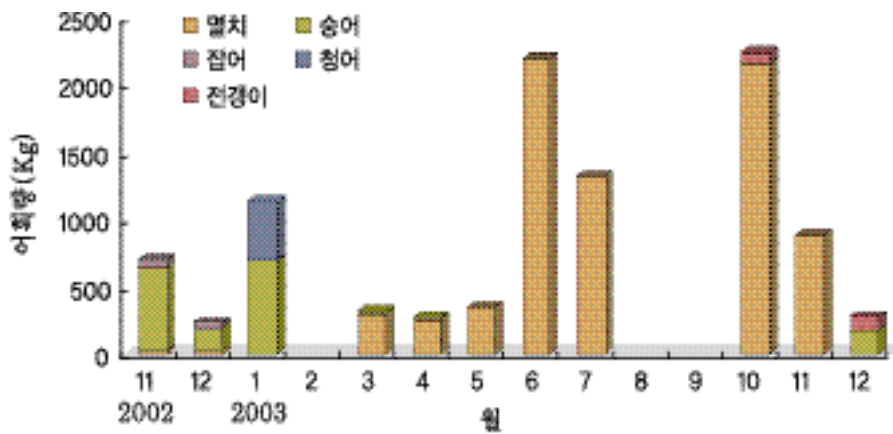
1~2

3)  
가)

1998 ~ 2001 5 , 2002 ~ 2003 17 ,  
가 , 가 .



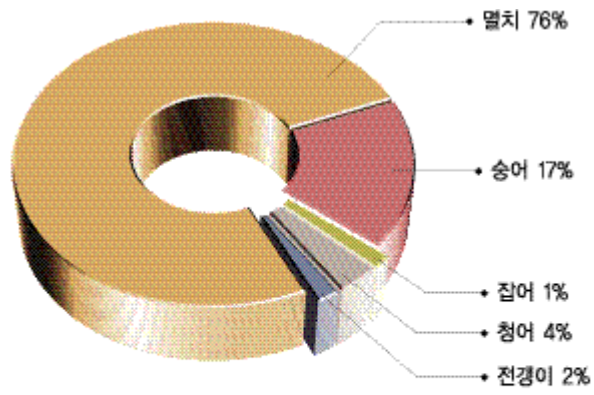
2-116. 가



( )

2-117.

2,250kg, 2200kg , 3~5 1 10 6  
263~348kg . 2, 8, 9



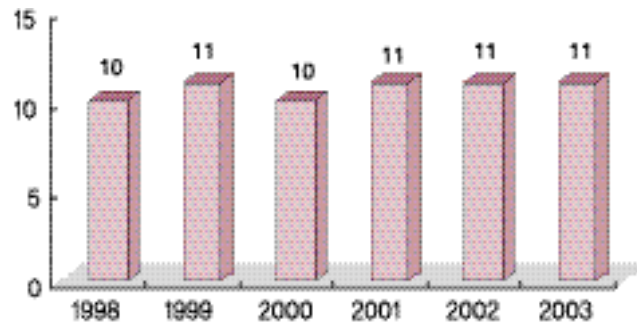
2-118.

가 가 76% , 17%, 4%, 2% .

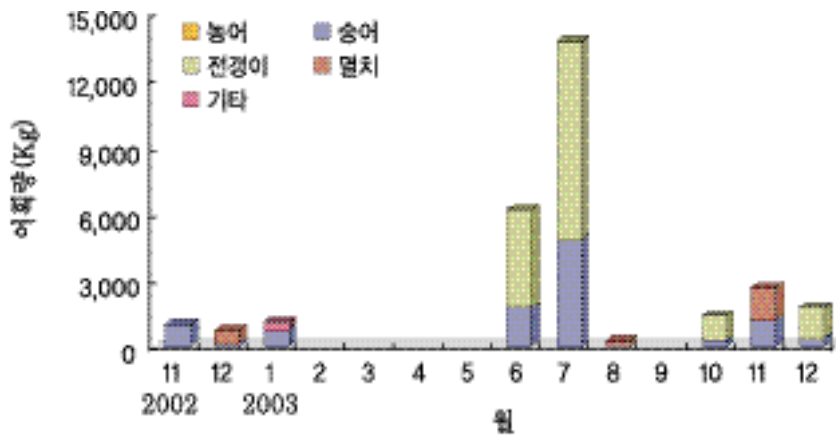
92 , 1~3 .

)

1998 10 , 1999 11 , 2000 10 , 2001 11 ,  
2002 11 , 2003 11  
가

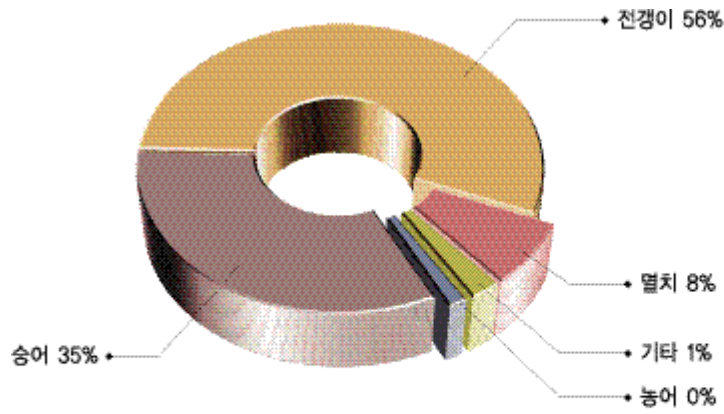


2-119. 가



2-120.

1 7 13,700kg 가  
, 6 6,150kg , 8 , 10~12  
, 2, 3, 4, 5, 9 .

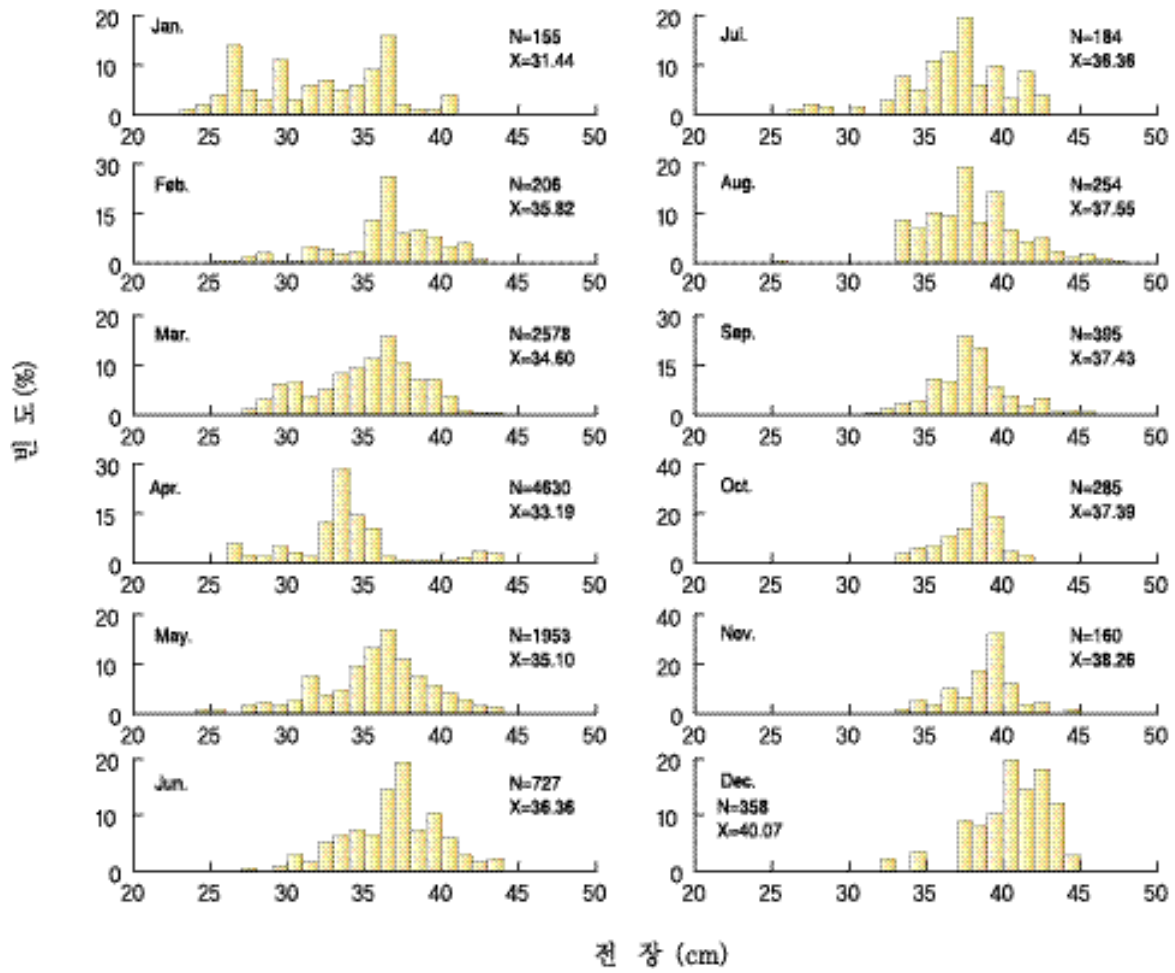


2-121.

35%, 8% , 가가 56% ,

( ) 36.13cm ( 11,885 ) , 5~8 . 3~4 cohort가

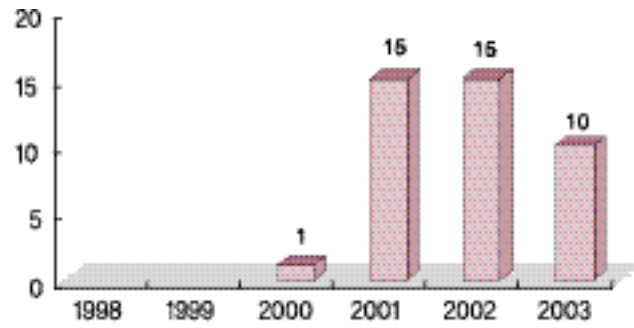




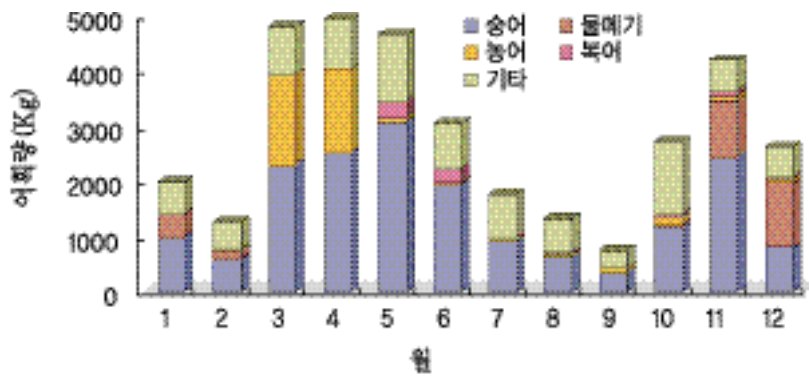
2-122.

)

2000 1 , 2001 2002 15 2003 10



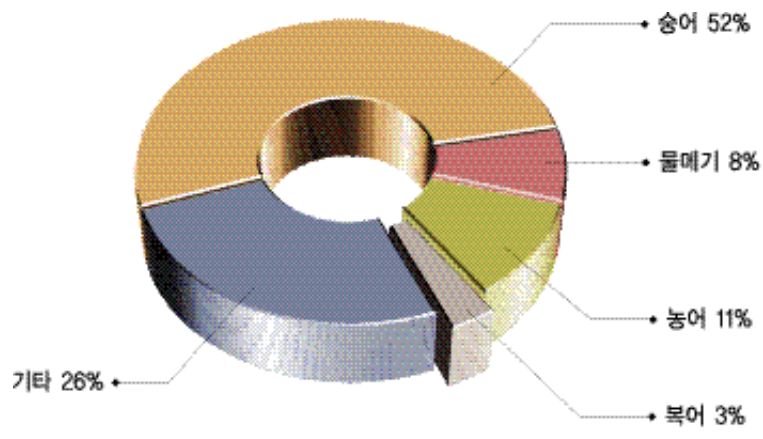
2-123. 가



2-124.

( )

4,168~4,901kg , 9 732kg 가 . 3~5 11



2-125.

11%, 8%, 3% . , 가 가 52% ,

가

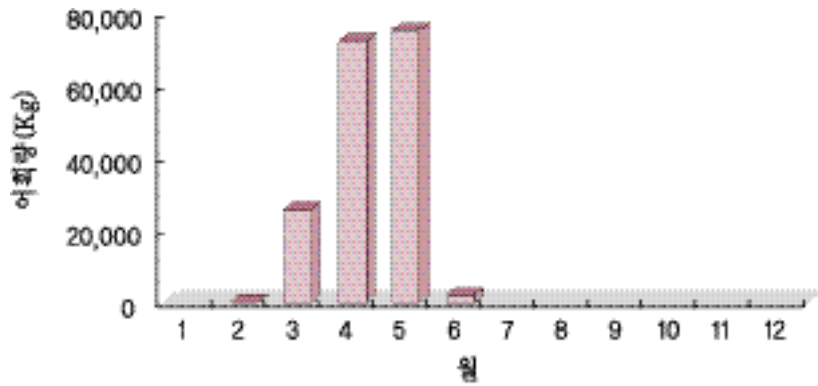
1

)

3 가가 , 1998 ~2001 4 가가 , 2002 ~2003 ( ) 3

)

가 1 가가 , 가 . 6 ,



2-126.

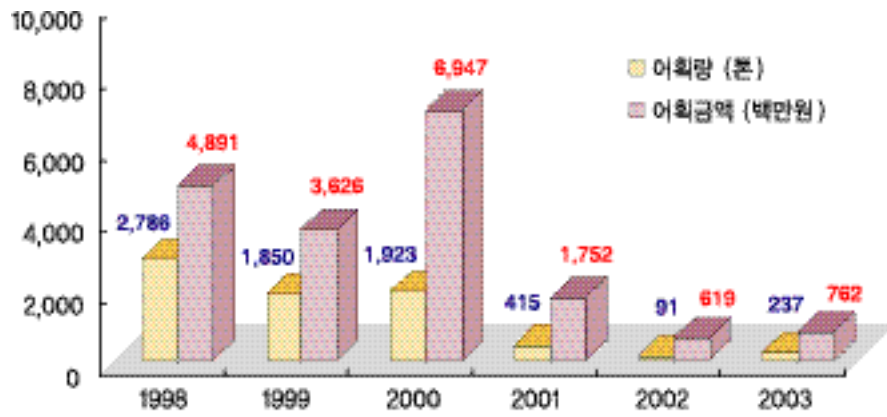
2~6 70, 25,500, 72,100, 75,300, 2,030kg , 1 7~12 (Mugil cephalus)

4)

가) 가

26 , 1829ha

)



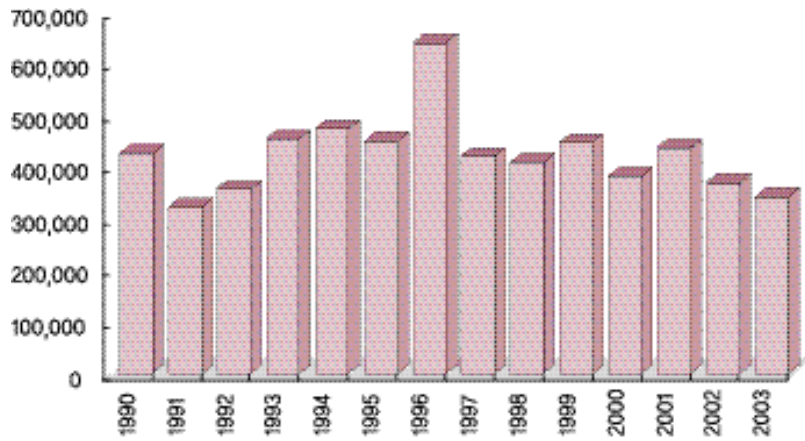
2-127.

. 1998 2,786 가  
, 2002 91 가 , 2003 237

4 , 3 ,

2-1.

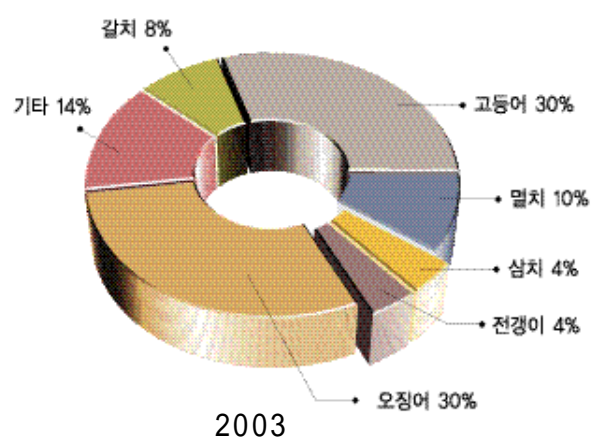
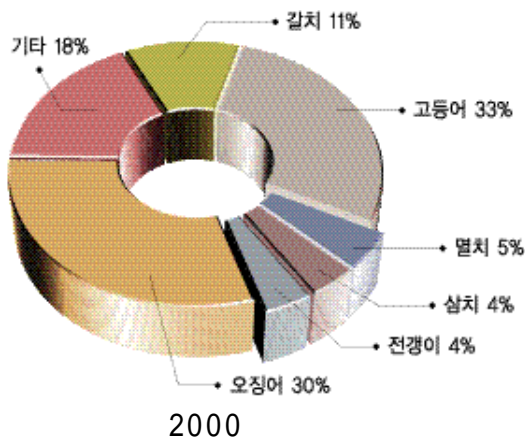
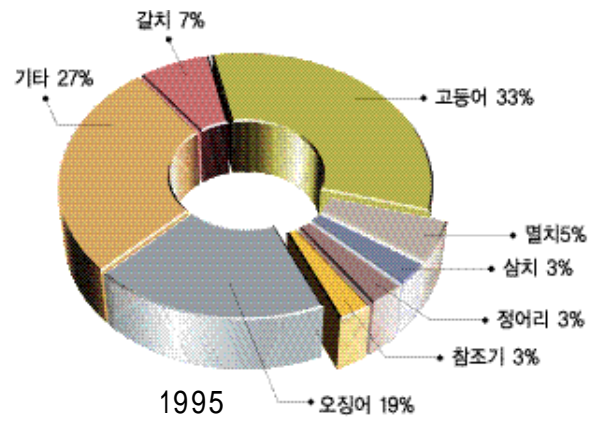
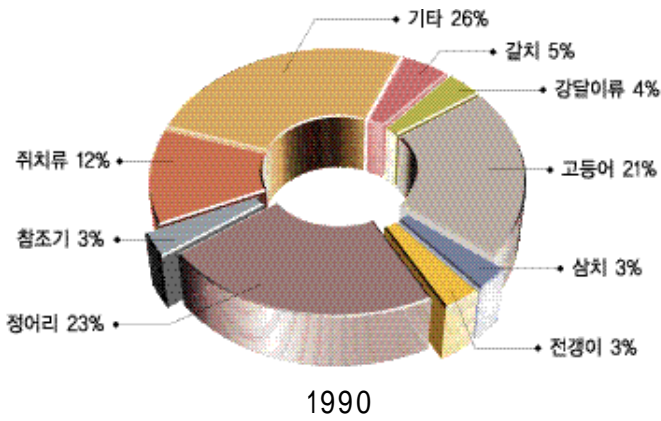
(kg)															
2002		55	20	7,665	600	-	50	3,000	-	-	-	800	550	165	2,500
2003		24	240	119,820	5,720	9,100	10,800	1,500	19,800	21,900	17,500	-	-	-	19,400
2003															
2003															



2-128.

1990 2003 1996 640,239 가  
 , 1991 320,009 가 . 2002 2003  
 367,776 , 342,579 (423,214 )

1)



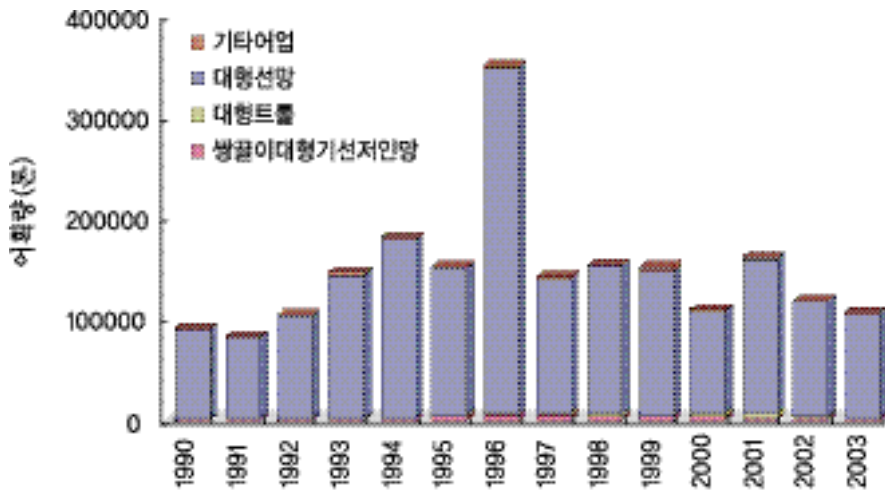
2-129.

1990 2003 , 1990  
 (96,984 ), (90,039 ), (52,515 ), (20,078 ), (15,107 ),  
 (14,604 ), (13,522 ) . 1995 (150,814 ), (84,059  
 ), (32,983 ), (20,361 ), (15,012 ), (11,802 ), (11,383 )  
 가 ,  
 . 2000 (110,837 ), (108,512 ),  
 (40,528 ), (18,258 ), (16,919 ), (15,659 )  
 , 2003 (106,045 ), (101,701  
 ), (33,543 ), (26,650 ), (12,665 ), (12,430 ) 2000

2)

, , , , , , ( ),  
 , , , ( ), , , , 가 , , , ,

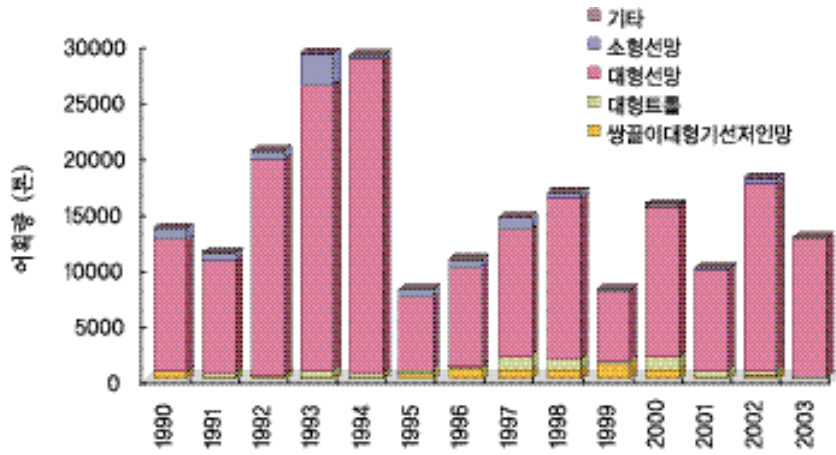
가)



2-130.

1996 351,092 가 , 1991 82,256  
 가 . 91~99%가 ,

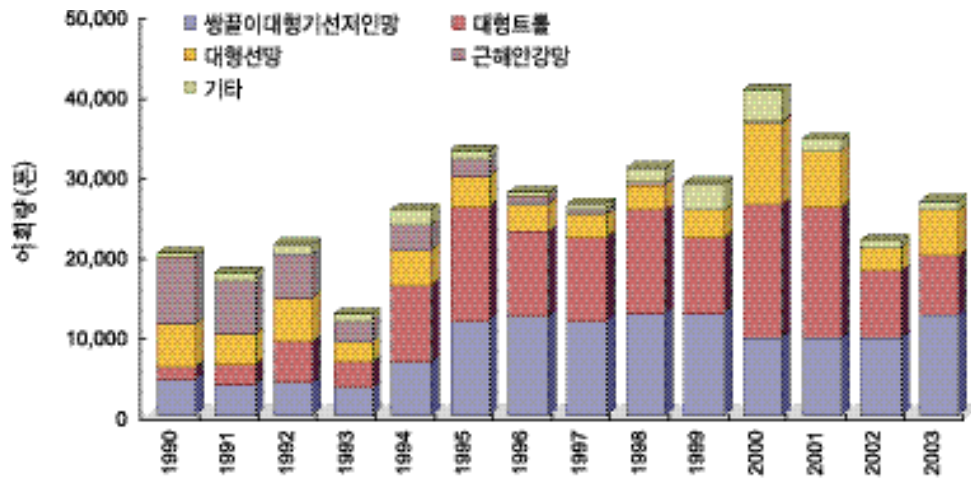
)



2-131.

가 . 1993 29,176 가 , 1999 7,926  
76~98%가 ,

)

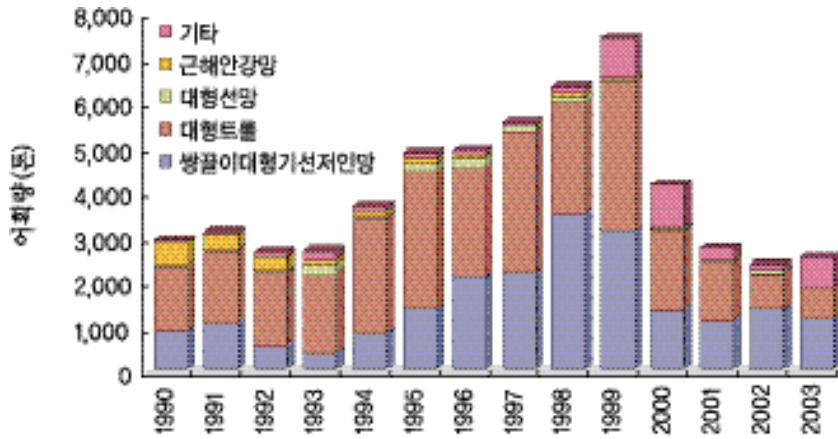


2-132.

2000 40,528 가 , 1993  
12,458 가 . 1990 41%,  
26%, 21%  
1991 1996 38%, 25%, 20%, 11%, 6%, 3%  
1% 1990  
21% 2003 46% 가



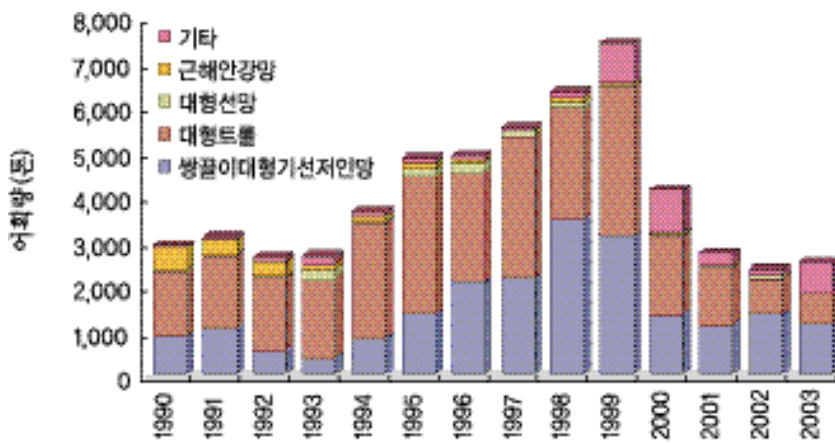
) ( )



2-133.

1999 7,358 가 , 2002  
 2,321 가 . 1990 50%,  
 30%, 17% . 1994  
 70% 가 2003 28% .  
 1990 가 2002 2003 57%,  
 45% .

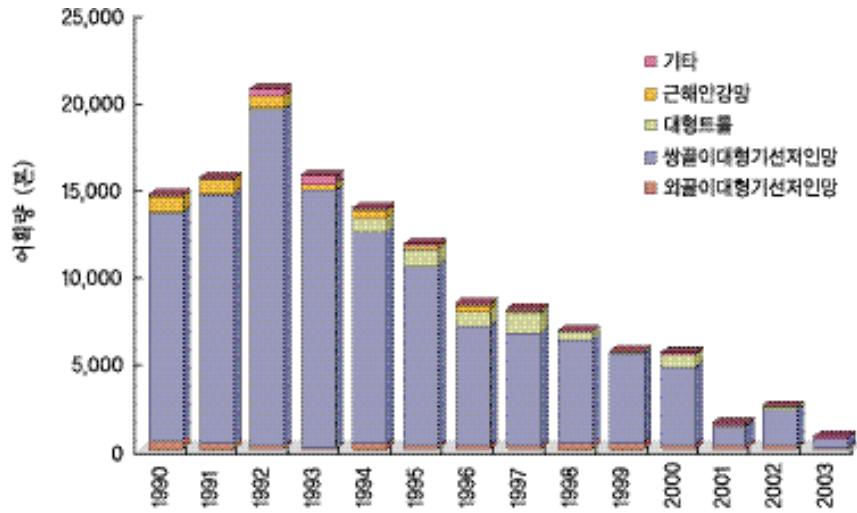
)



2-134.

2003 1,389 가 , 1996 172  
 가 . 1990 86%  
 , 2003 59%,  
 38% 가 .

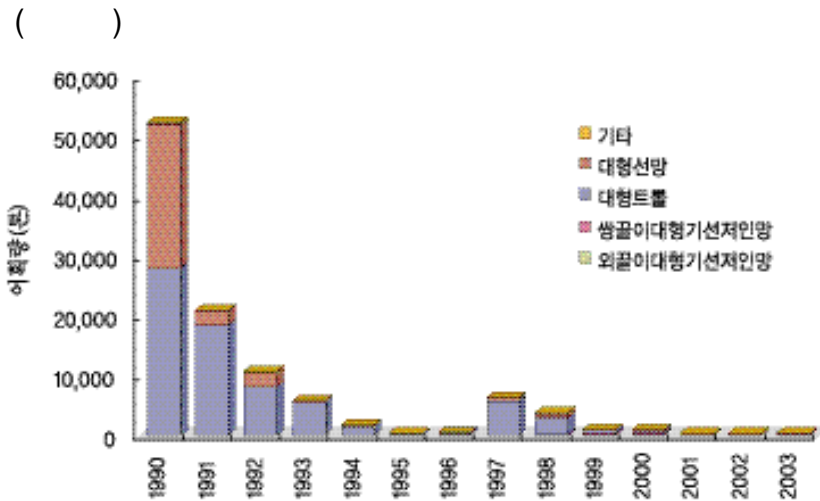
)



2-135.

1992 20,708 가 , 2003  
 665 가 , 1990  
 89%, 6%, 3%  
 2003 84% 가  
 1% ,  
 13% 가 .

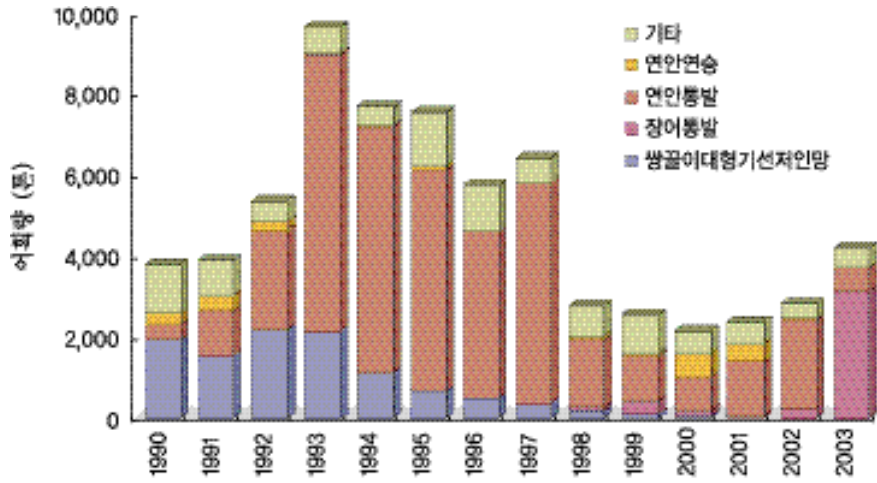
)



2-136.

1990 1990 52,515 가  
 , 1995 1996 350 , 522 . 1997  
 6,346 300  
 . 1990

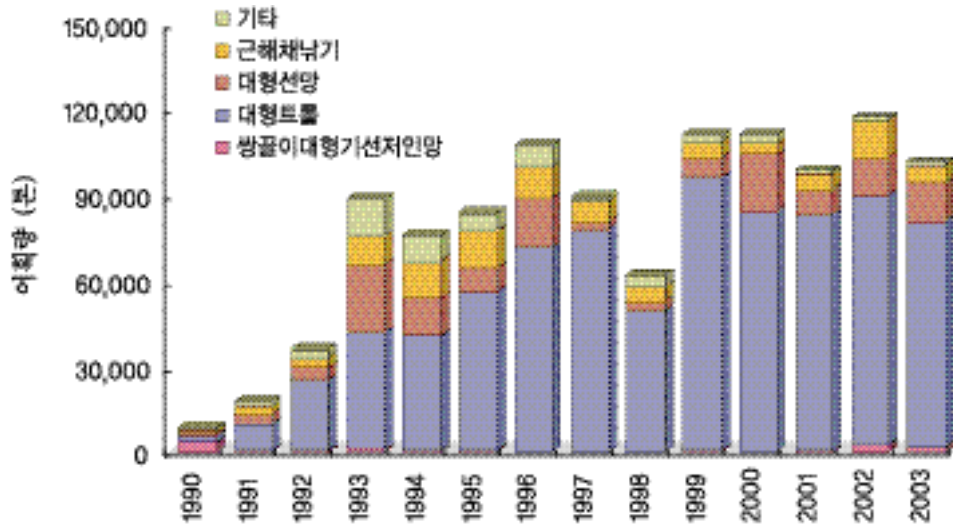
)



2-137.

가 . 1990 . 1993 9,615 가 , 2000 2,139  
 6%, 32% . 50%, 11%,  
 2001 , 2003  
 75%, 14% , ( )

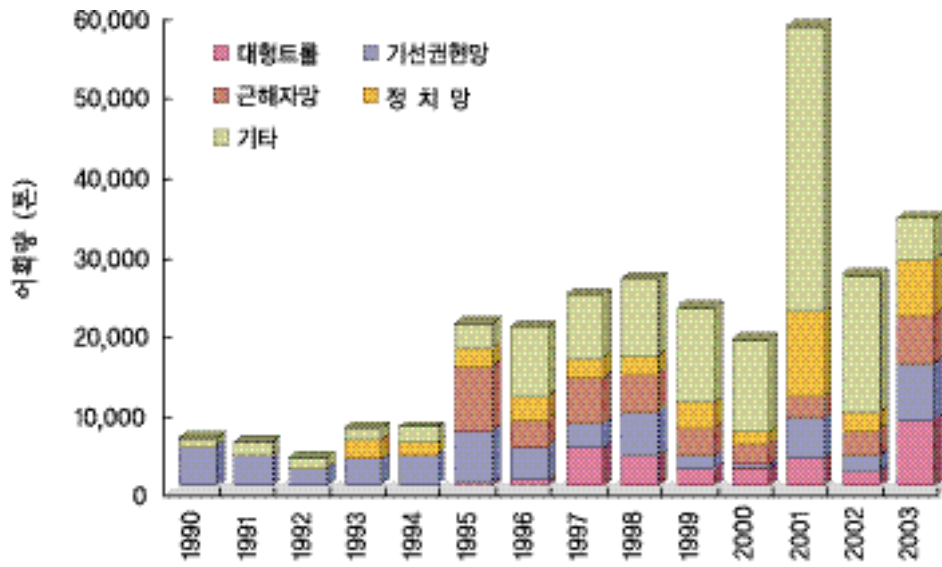
)



2-138.

2002 117,088 가 , 1990  
 8,992 가 , 100,000 . 1990  
 39%, 24%,  
 19%, 9% . 2003 77%,  
 13%, 7% 가

)



2-139.

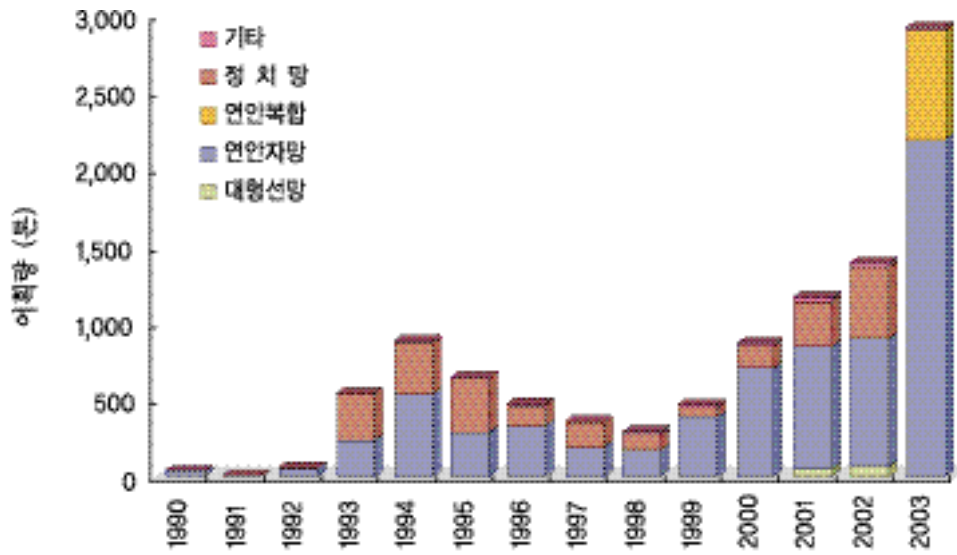
1990 2001 57,534 가 ,  
 1992 3,452 가 . 1990 84%,  
 ( , ) 16% . 2003 24%,  
 21%, 21%, 18%, 15%

)

1990 2,384 가 , 1999 373  
 가 . 1990 75% 가  
 2000 10% ,  
 가 2003 43% .  
 1996 20% .



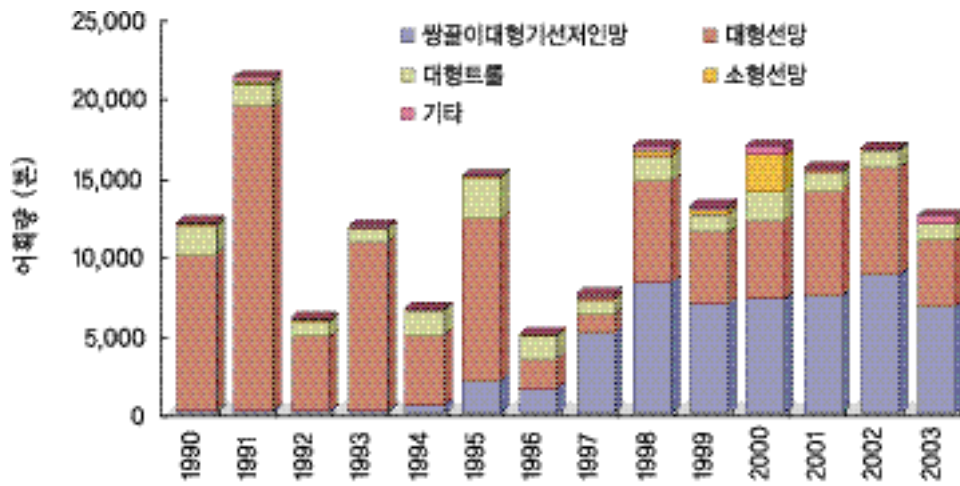
)



2-142.

1990 2003 2,924 가  
 , 1991 4 가 2000 가  
 . 1990 ~1992  
 1993 2002 35%  
 2003 75%, 24% 2

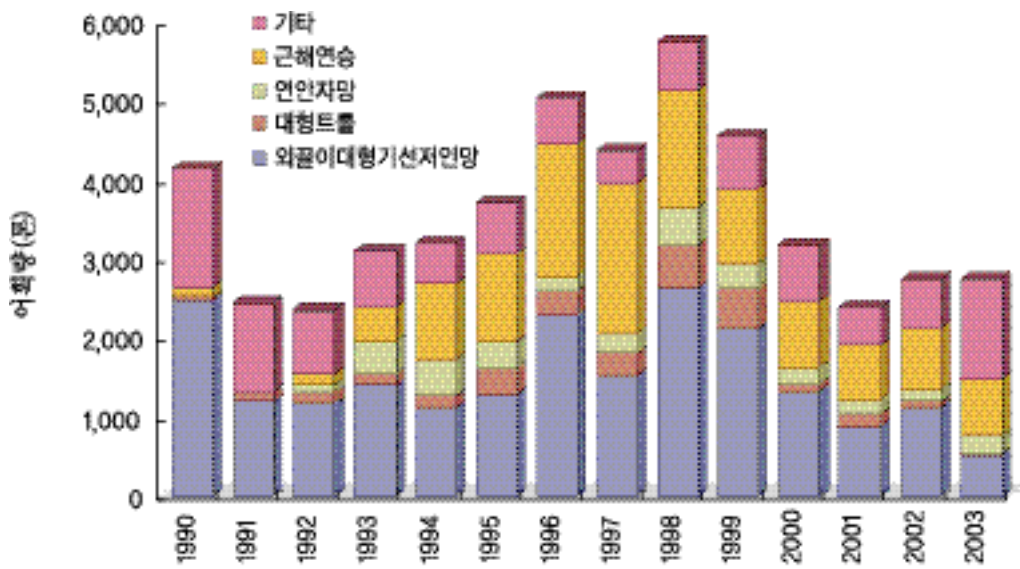
)



2-143.

1990 1991 21,136 가 ,  
 1996 4,971 가 2000 2003 가  
 12,430~16,919 . 1990 82%,  
 15% . 2003 55%,  
 34%, 8%  
 가 .

) 가

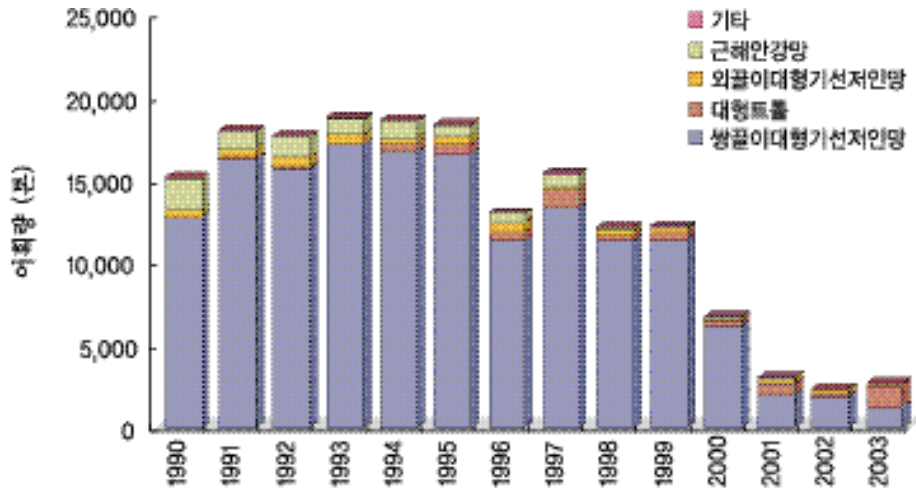


2-14. 가

가 가 , 가 가 .  
 가 1998 5,726 가 , 1992 2,340 가 .  
 1990 가 60% 가  
 3% . 1994 20%  
 , 1994 2002 2 65~79% 2003  
 44% , 가 .



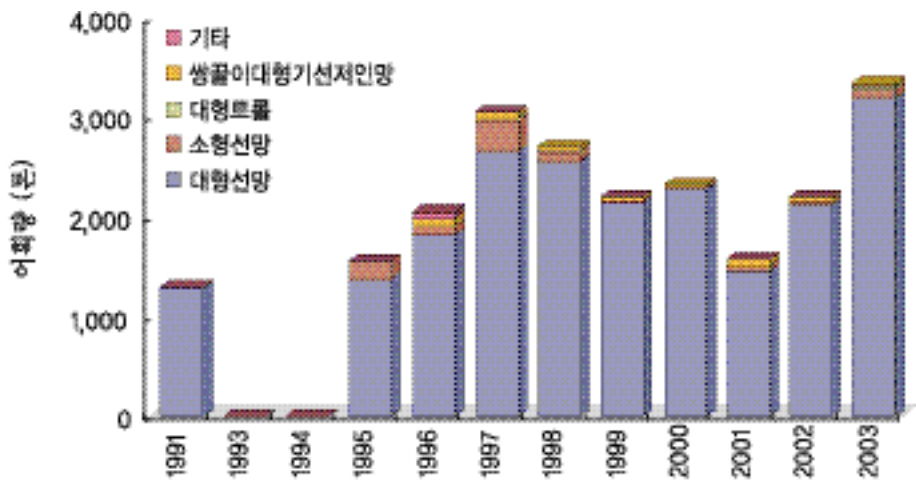
)



2-145.

가 , 2002 2,319 가 , 2000 18,728 가  
 . 1990 84%,  
 12% , 2000 84~94%  
 , 2001 2003  
 24%, 14%, 46

)

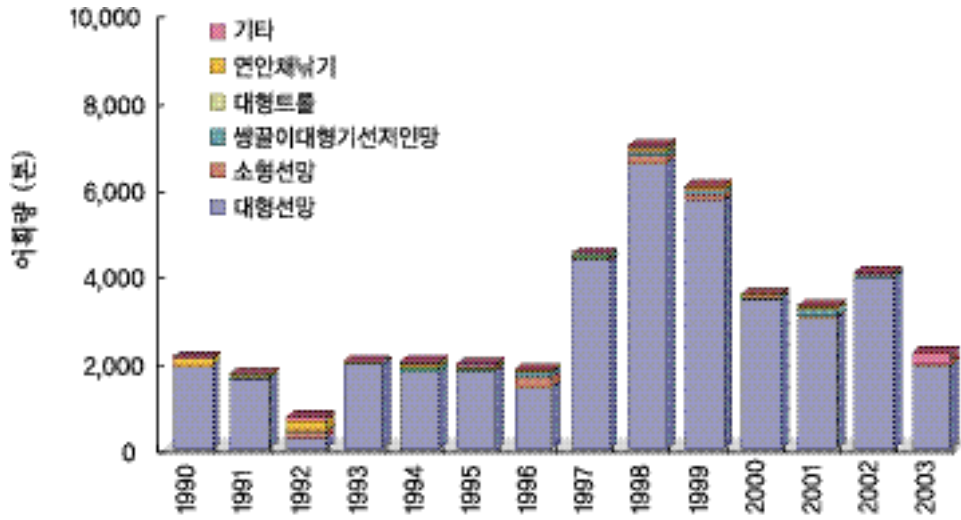


2-146.

2003 3,327 가 , 1993 1994  
 88~100%



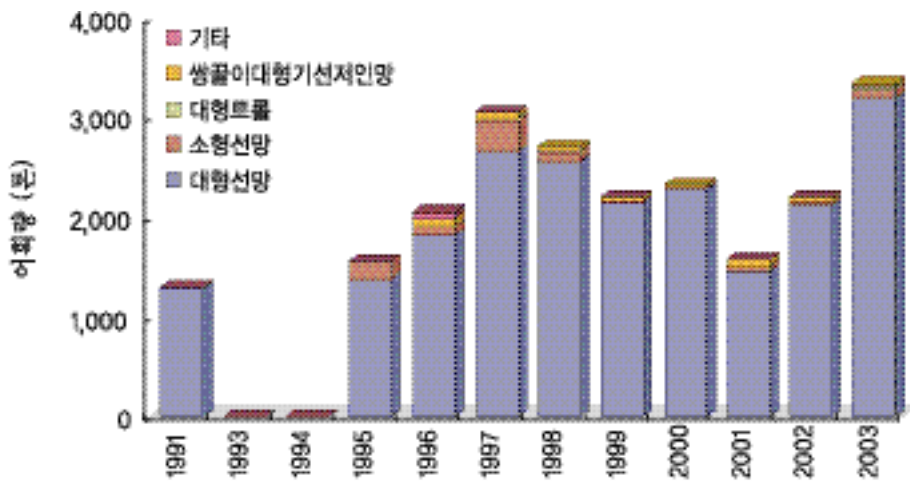
)



2-147.

1990 1998 6,975 가 ,  
 1992 719 가 , 2000 2003 2,209~4,037  
 . 1990 89%,  
 8% 1990 2003 1992  
 78~97% .

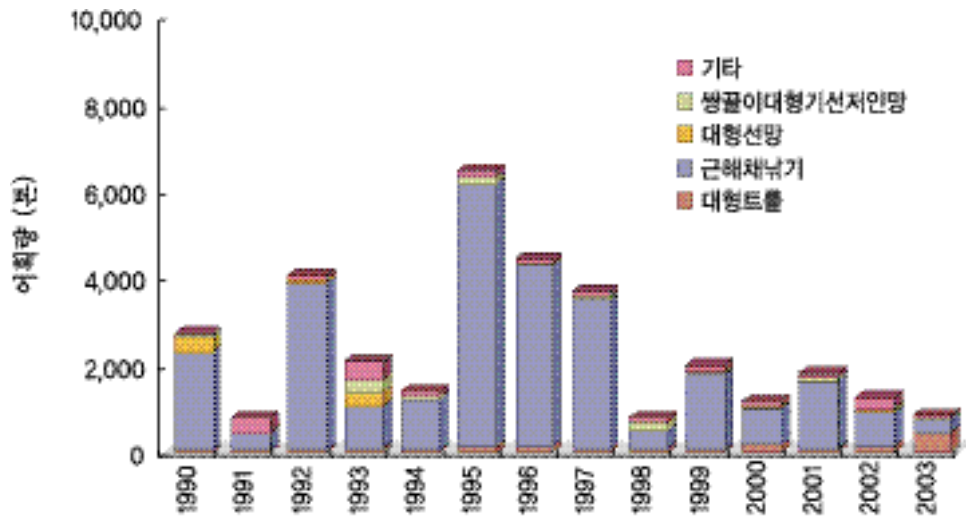
)



2-148.

1990 1998 913 가 ,  
 2003 104 가 . 1990 22%,  
 17%, 15% .  
 , 2003 ( ) 46%,  
 28%, 13%, 5% .

)



2-149.

1990 1995 6,456 가  
 , 1991 772 가 . 1990 84%,  
 11% . 2002 가  
 , 2003 53% ,  
 32% .



가 가			吳	吳 吳		吳 吳 吳
	吳	吳 吳			吳	
		吳	吳			

( 吳 :            ,    :            )

2)

, , , , ,

, , , , ,

, , , , ,

가 , , , .

3-2.

가			吳		吳		吳		吳
	吳				吳				吳
					吳	吳		吳	
	吳				吳				吳
		吳		吳	吳				吳
			吳						吳

( 吳 : , : )



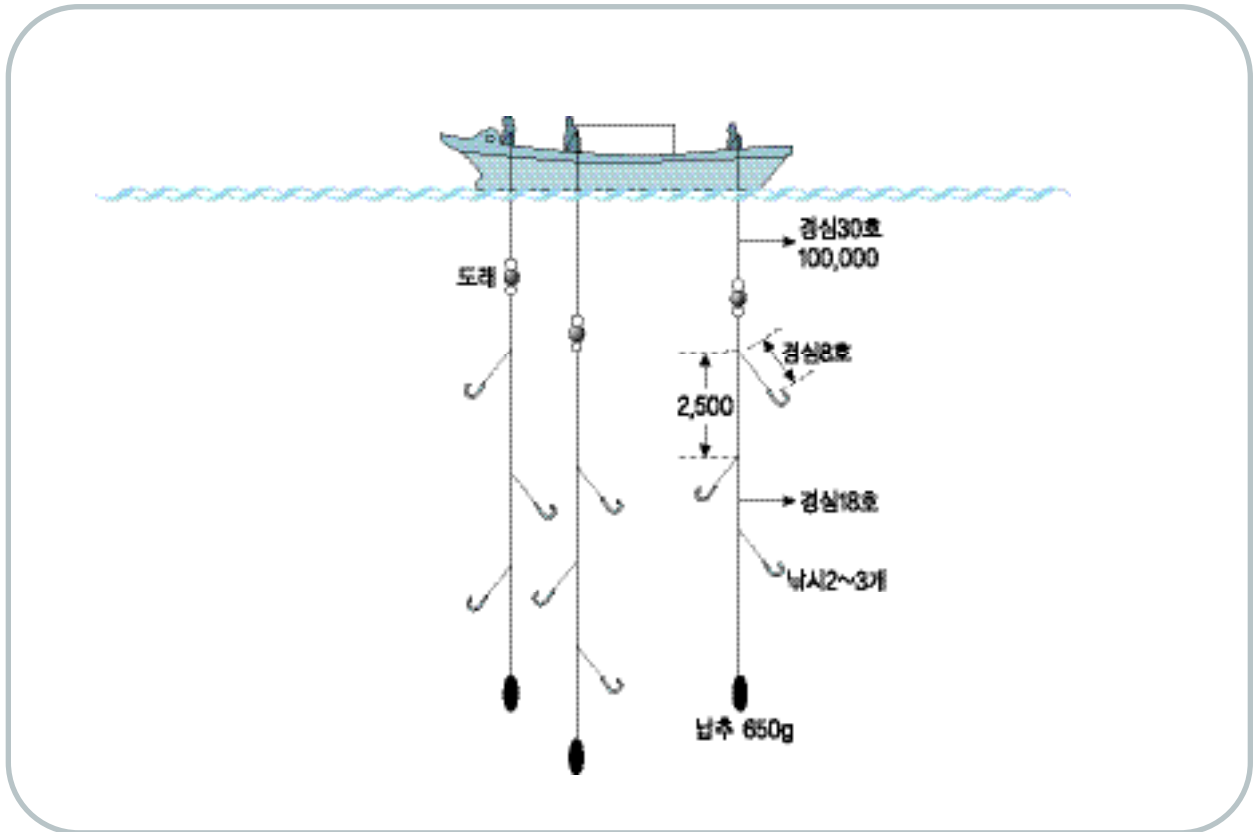
2)

3-4.

		( )	( )	( )		
					,	
	,	3~1	1~4	2~3	2~3 /	1 /
	, ,	4~11	2~4	1~2	1 /	8
		7~11	5~7	5~7	15~20 /	2 /
	, ,		2~7	3~6	200 /	5~30
( 1 )	,		2~7	2~3	6~9mm	10 (150 / )
( 2 )	, ,		1~2	2~3	13mm	1~2 (200 / )
( 3 )	, ,		2~4	2~3	27mm	10 (30 / )
		3~6 9~12	5~8	6~8	18~24mm	1 (15~20 )
	가 , , ,		4~7	3~4	110~120mm	1 (5~10 )
		3~6 9~12	1~3	2~3	120	1
	' , ' , ' , ' , , 가		1~3	2	36mm	1

3)

가)



: 8~1 , 3~1

: 40~50m, ,

: , , , 30%

: , , ,

:

30 , 2.5m 8 10 , 1m 2 3 . 1

T , 가 가

1m 600g .

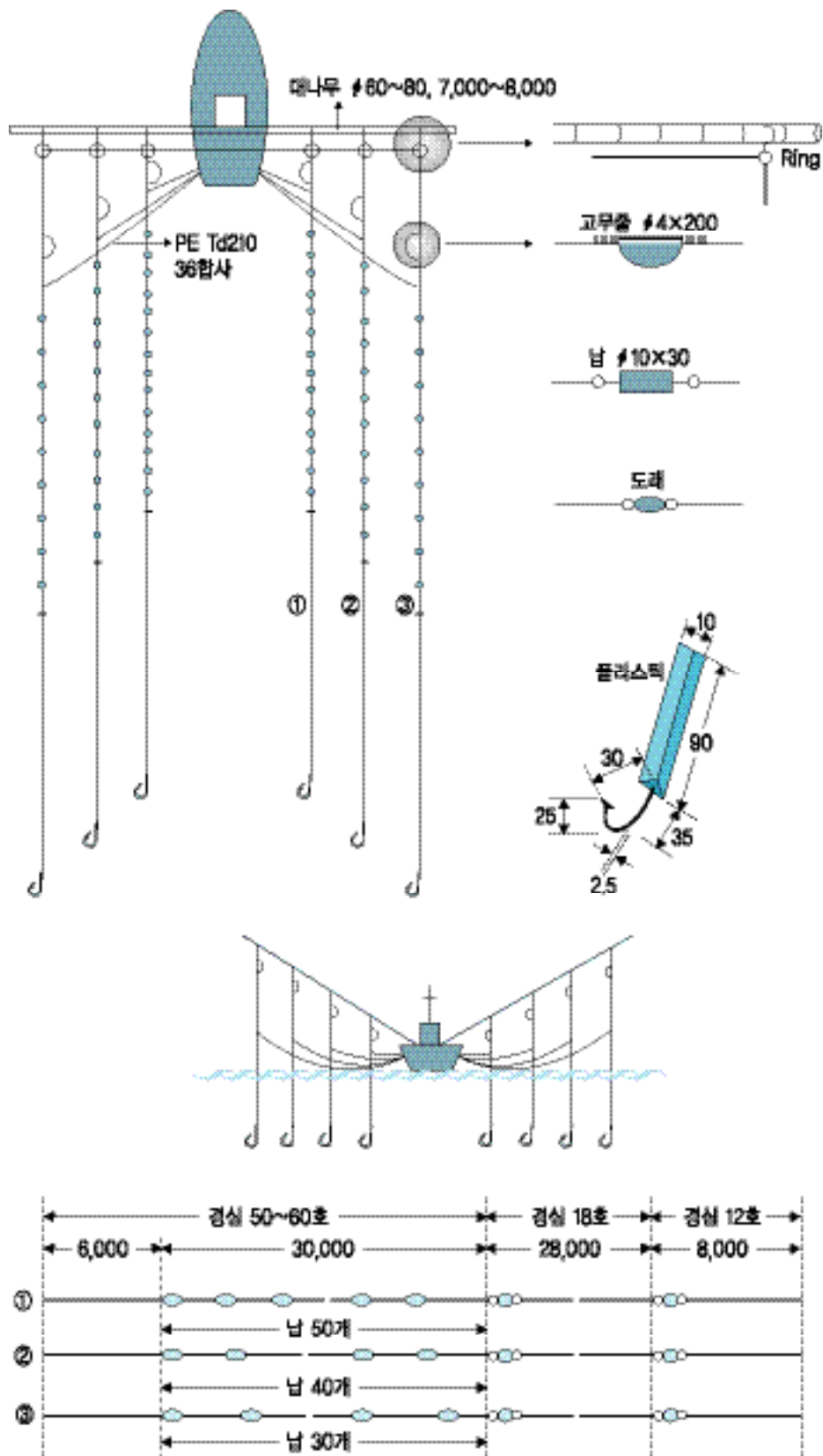
4 5 . 가 가

가

. 가



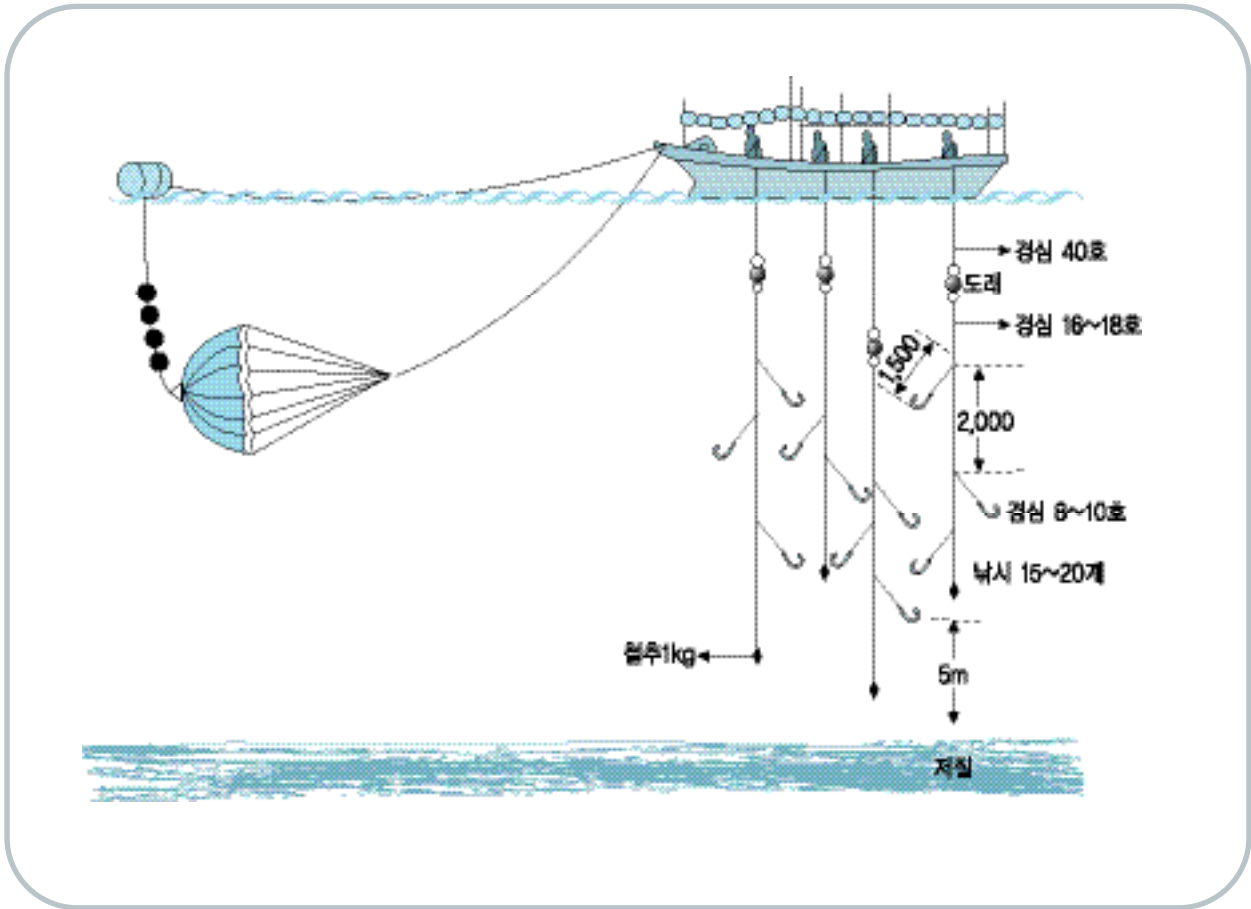
)



: 4~11 , ,  
 : 40~50m, ,  
 : , ,가 , 30%  
 :

3 4  
 1 가  
 ,  
 50 , 16 20  
 4  
 5 6 5 6 ,  
 , .  
 가 ,  
 5 6 , 15m

)



: 7~11

: 70 80m,

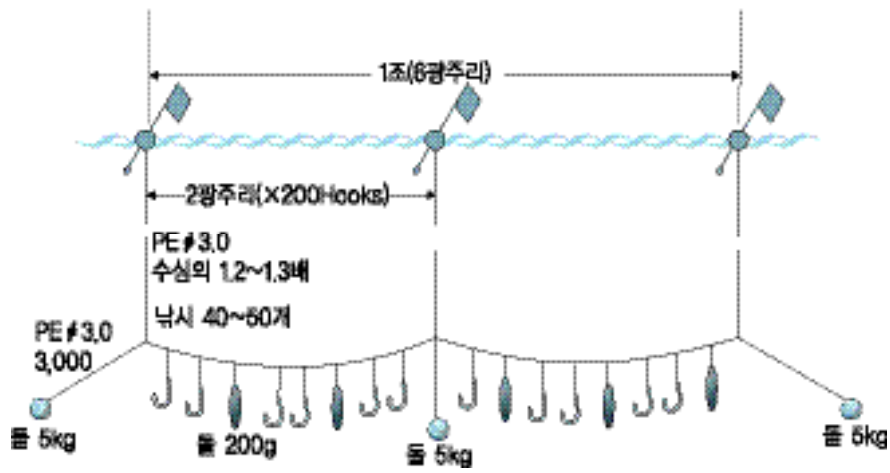
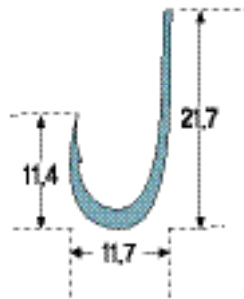
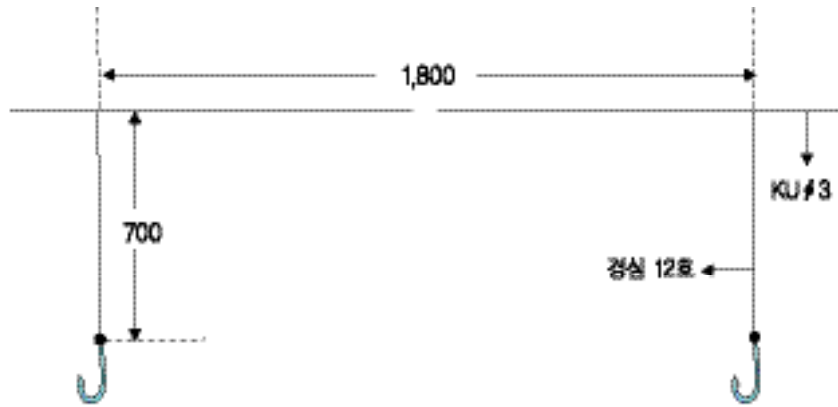
:

: ,

:

40 2m 8  
10 1.5m . 15 20  
1kg .  
가 . 가 1.5kW  
60 . 1  
2 ,  
3 4m .

)



: , 9 5

: 50~100m,

: 90%, , ,

: ,

:

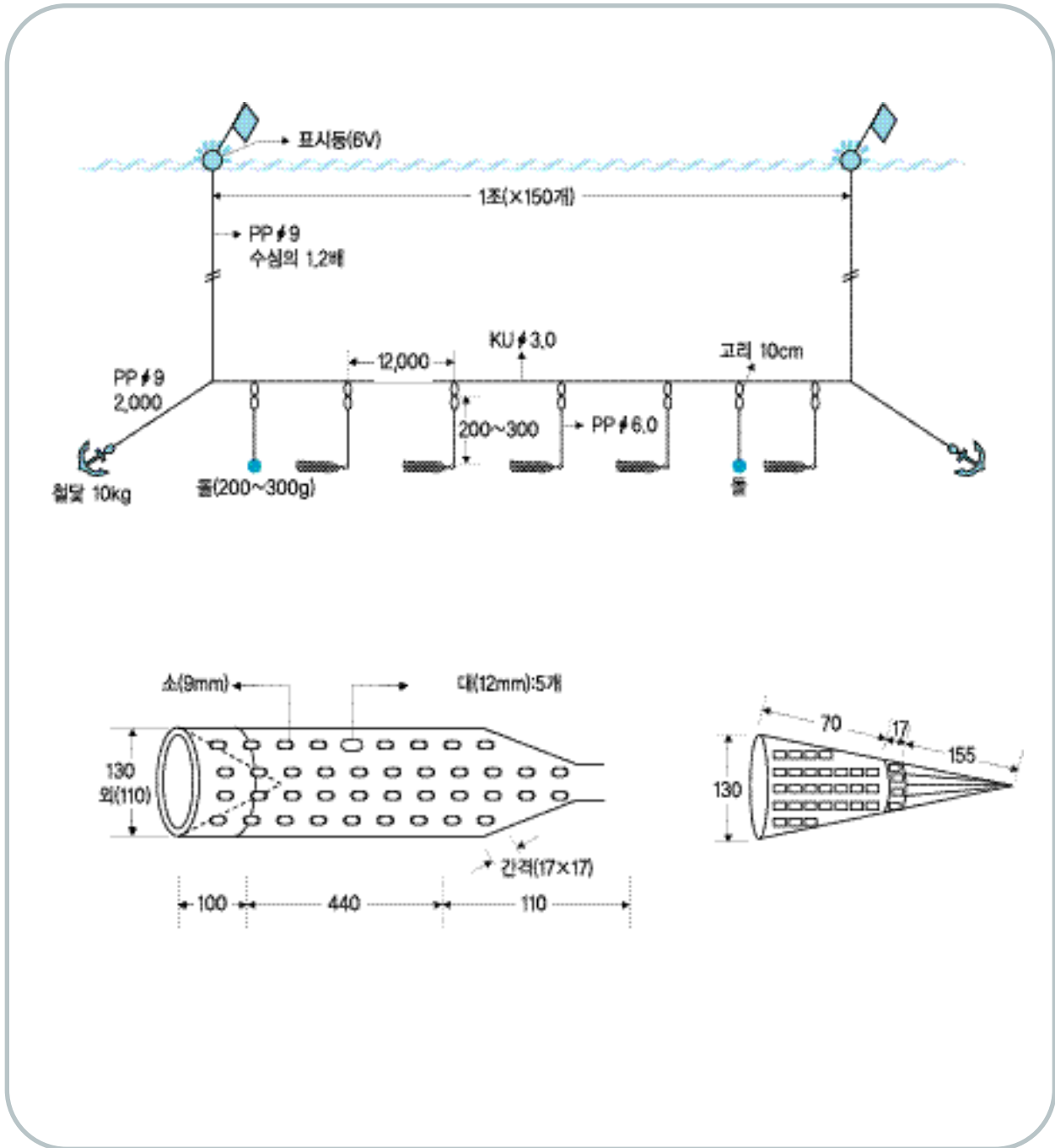
KU 3mm , 12 ,  
1m 1 200 .

, . 40 50 200g 2 ,  
4 6 1 가

. 1 1 1 2 ,

3 4 .

)  
(1)



:

: 20m ,

: 가 90%, 10%

: , ,

:

4 5 ,

6 24

,

,

8

1,000

1,500

6m

12m

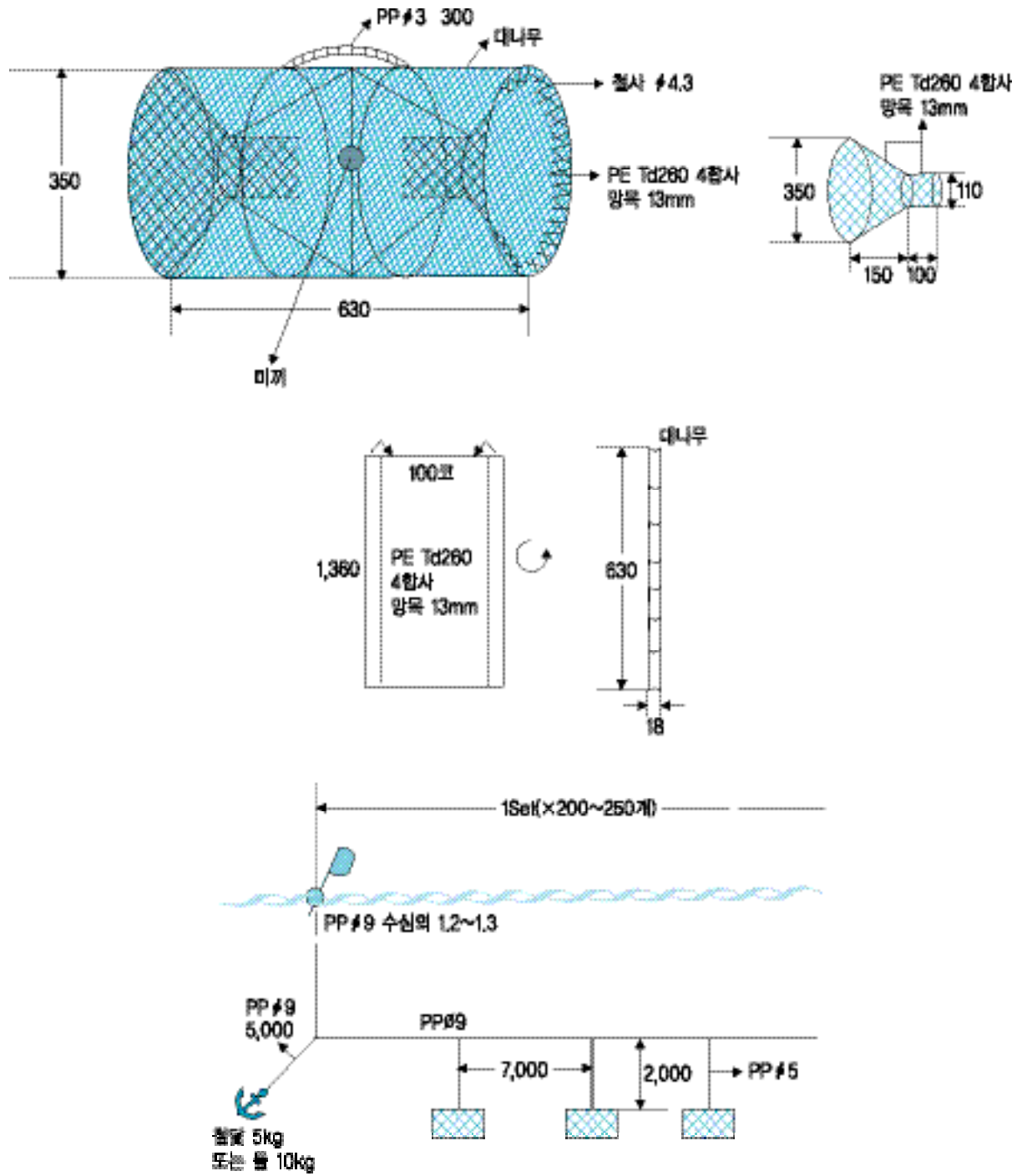
10m

,

100 200

1

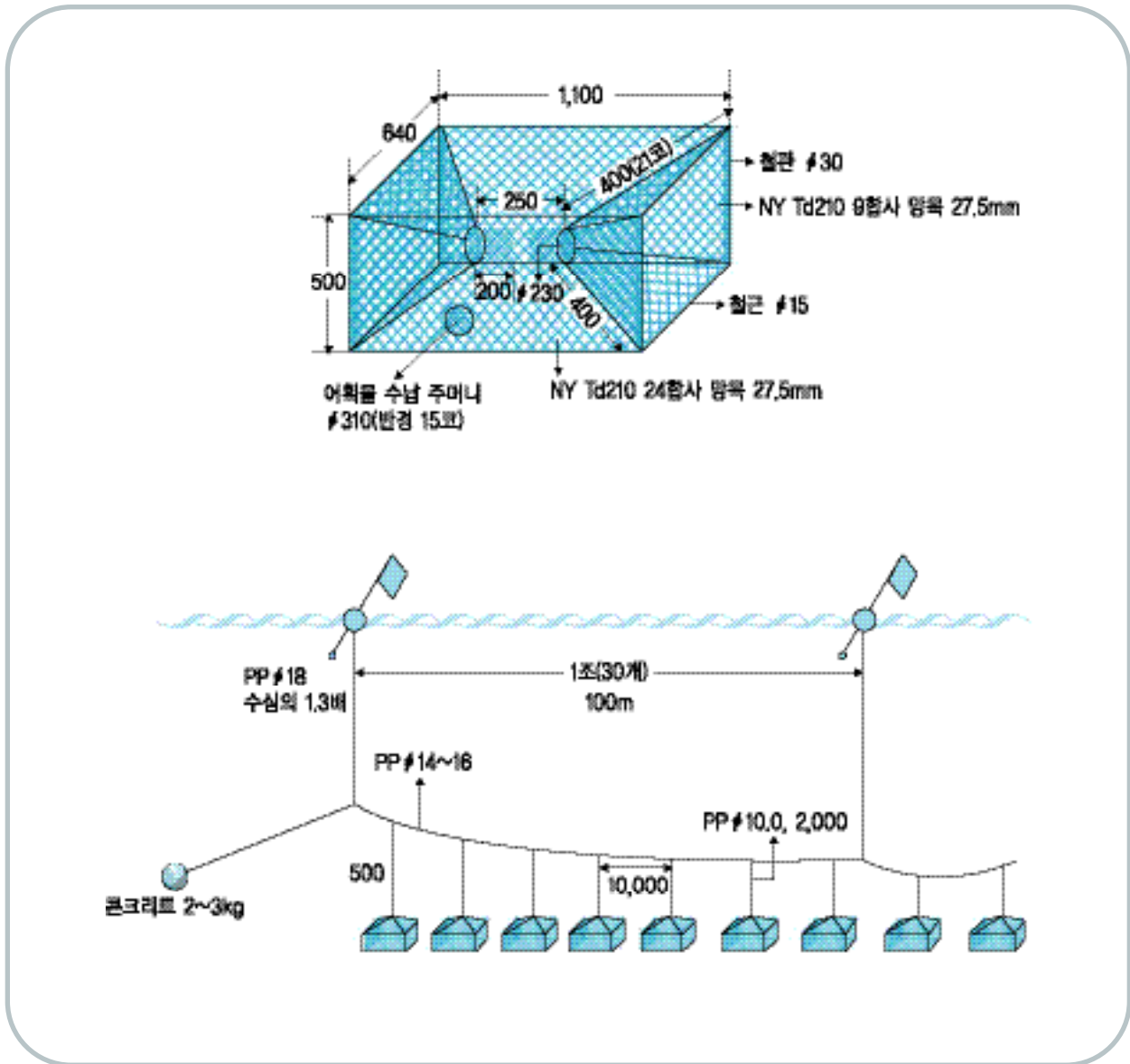
(2)





:  
 : 20m ,  
 : , , ,  
 : , ,  
 :  
 4.0 350mm  
 , PE Td240 4 13mm , .  
 100mm 2 , 5 6  
 , 1 2 ,  
 , 가 .  
 FRP 1~2 2~3 5 6  
 . 200 250 1 1 2 1  
 40 50 , 1 30 2 .

(3)



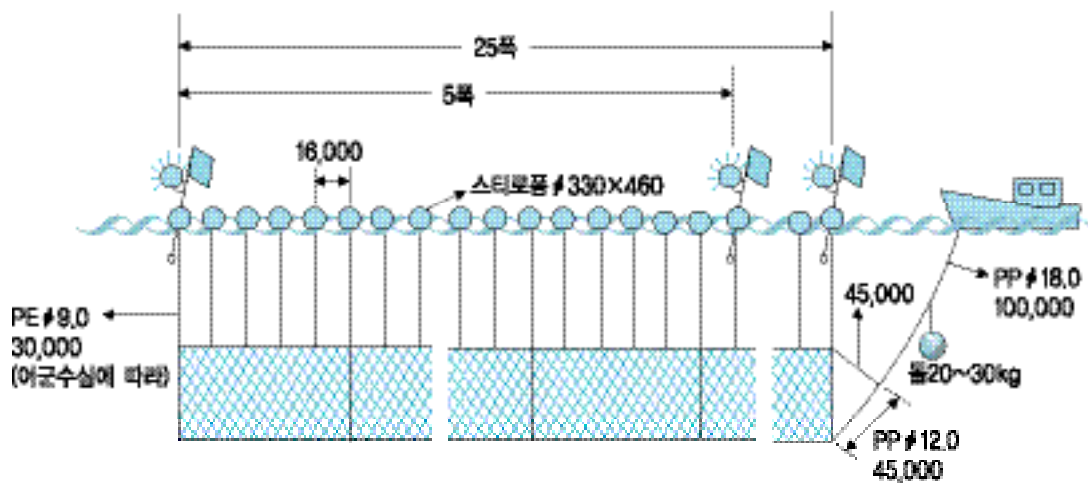
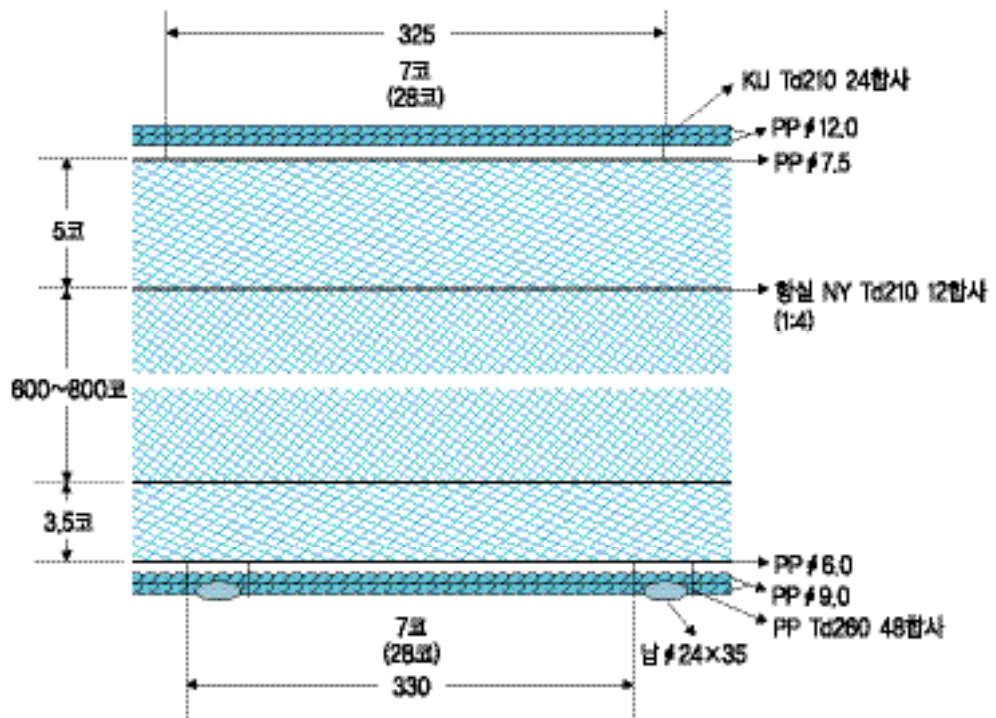
:  
 : 40~60m ,  
 : , ,  
 : , ,  
 :  
 30mm 15mm  
 Td210 9 27mm 2  
 50mm 가 4  
 가 가  
 30 1 20 30  
 1 10  
 , 1 . 1  
 20 , 1 .

)

PP #12.0 81,250

5코	Knot NY Td210 39합사 망목 75.7mm	132,500
600~800코	Knot NY Td210 3합사 망목 21.6mm (망목 18.9~24.2mm)	151,500
3.5코	Knot NY Td210 39합사 망목 75.7mm	132,500

PP #9.0 82,500



: 3~6 , 9~12

: 50~200m

:

:

	NY Td210 3	19 24mm	,
51 54%,	55%	가	2 8%

.

. , 가 30m 가

, 가

, 1 5 6 .

1 15 20 ,

.

3 4 가 , .

, 10cm, 5 6m

.

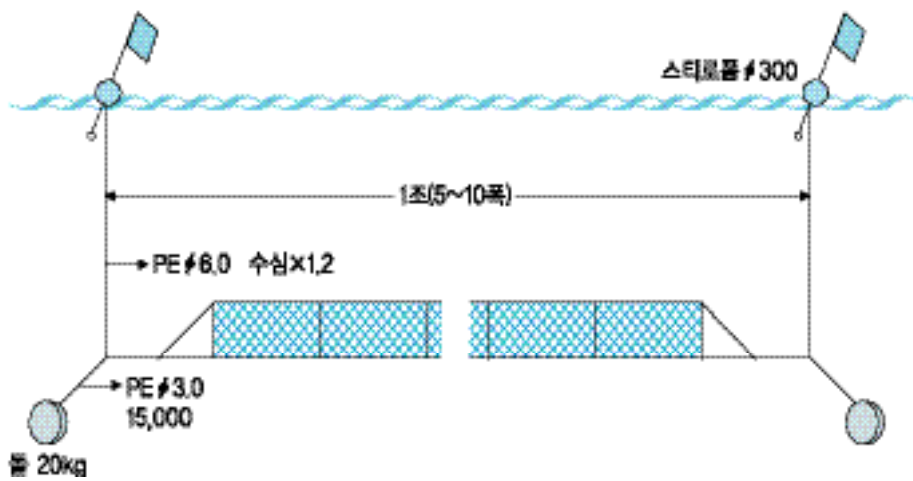
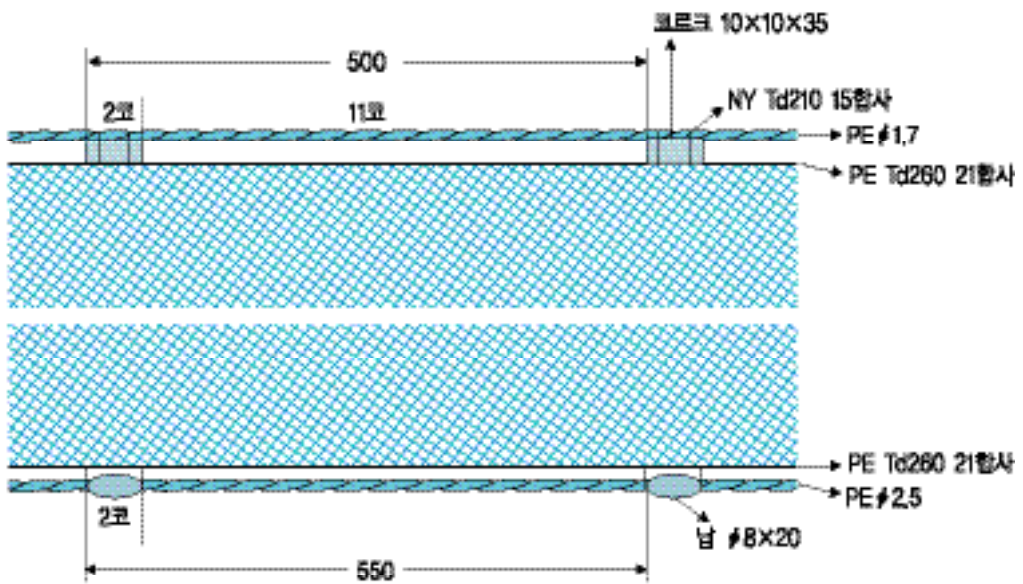
. 1 30 , 2 3 , 1 2

) 가

PE #1.7 115,200

20코	Knot NY Td210 3합사 망목 121.2mm	303,000
-----	------------------------------	---------

PE #2.5 105,800



: 가 , 6~2

: 150~200m,

: 가 60%, , ,

:

NY Td210 3

110~120mm

38%,

35%

FRP

4 7

50 200

3 4

1

10 20

5 10

1

1

5 6

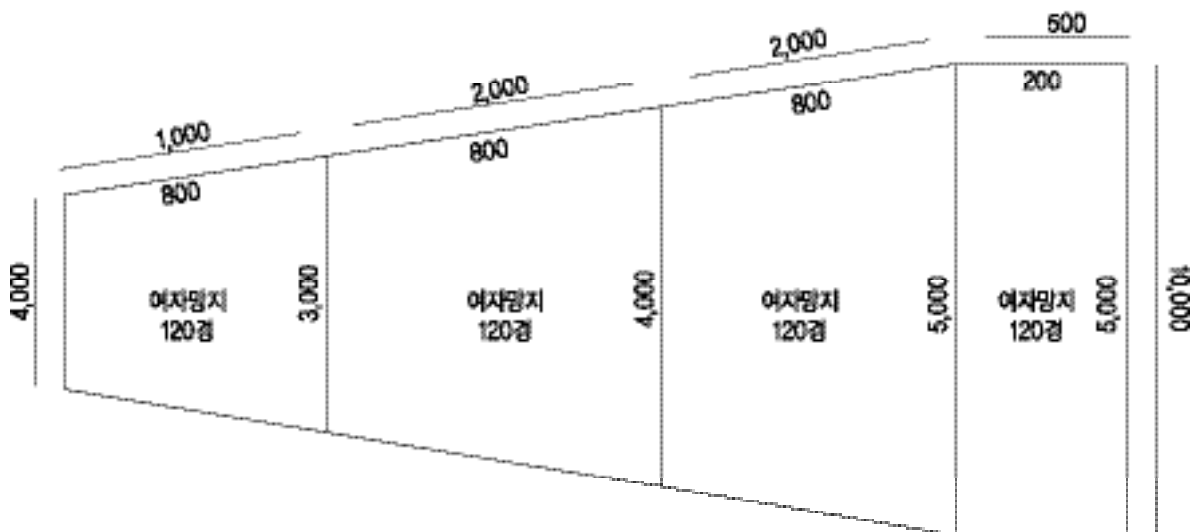
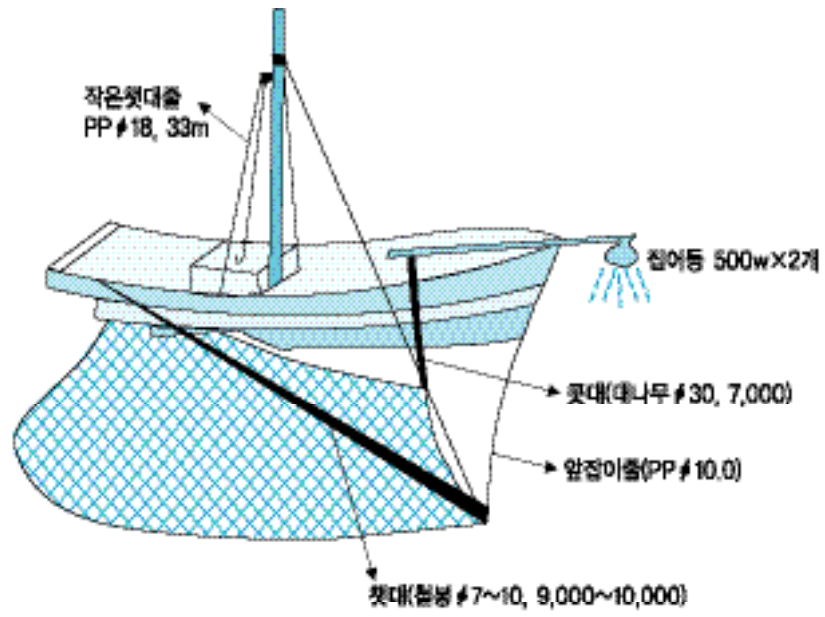
20 30 ,

1

1

30

)





: 3~6 , 9~12

: 15~25m

:

:

,

120 ~160

가

가

1

, 가

. 2

3kg

3

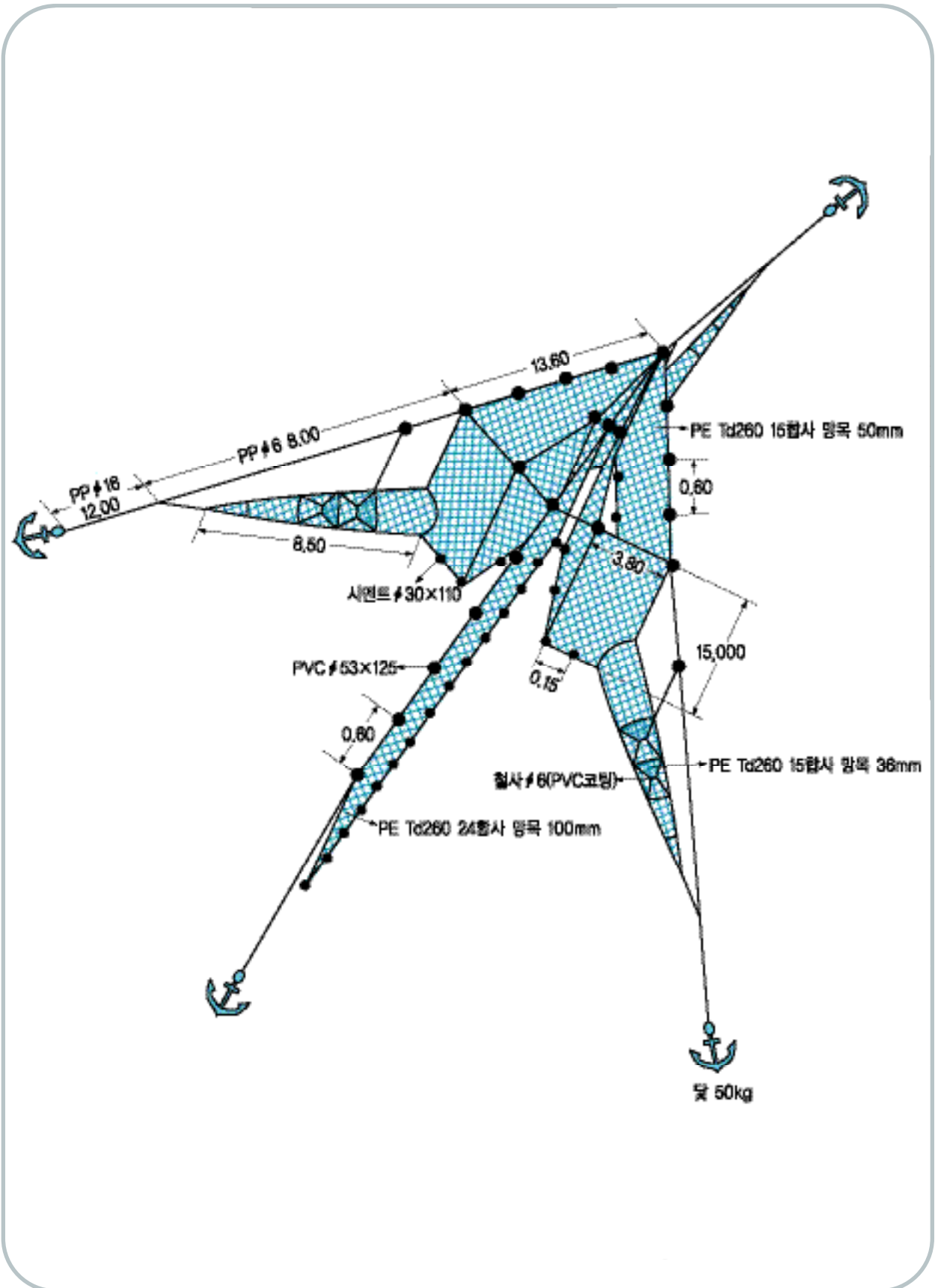
가

. 1 7~8

10 ,

2

)



: 4~6

: 15~25m

: , , , , , 가

:

2 1

가 , .

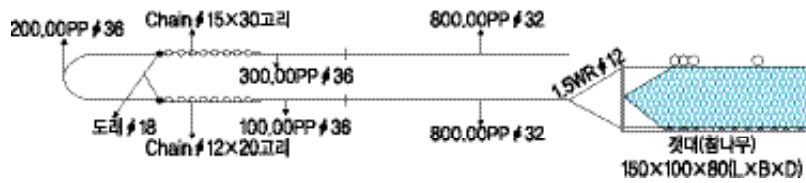
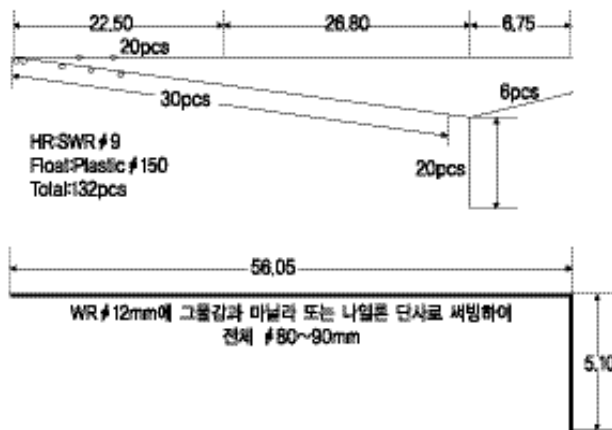
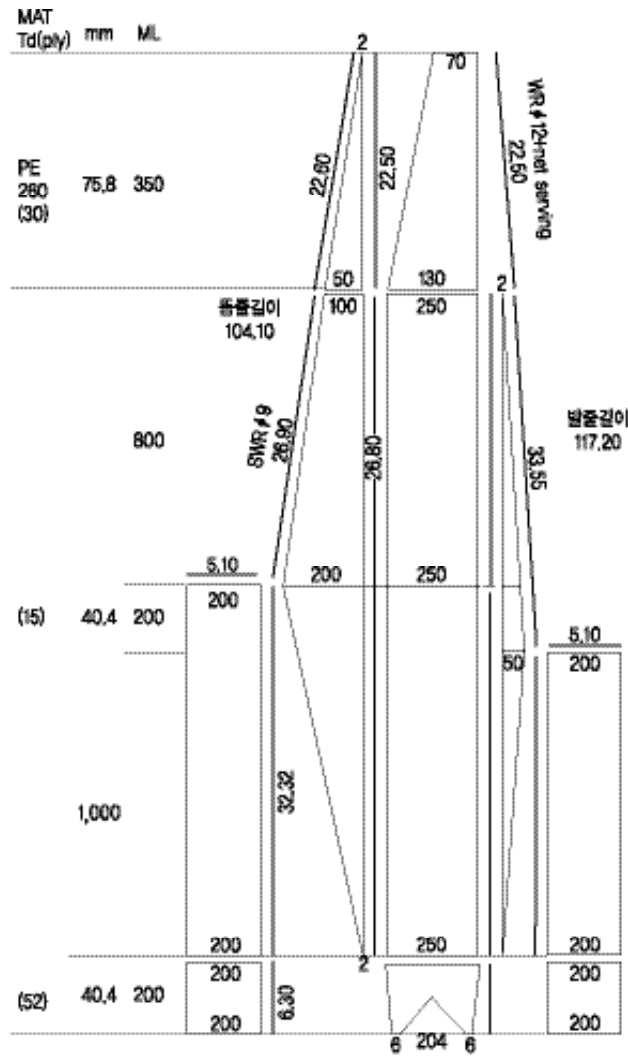
121.2mm

, 60.6mm .

12~15m , 9~11m , 1 1 ,

1 1 .

)



: 가 , 10~5

: 40~200m

:가 , , , , ,

:

40 100

350 650

12 13

1

가 .

가

150

가

90

30

90

가

가

10 15

가

가

180

가

가

가

1.5

2

,1

50 60

1 10

,1

가

1



: , 4 7 2 3  
: . 50 150m,  
: , , , , , ,가 , ,가  
:

80 140 , 500 1,800 12 14

가 가가

( )  
가

V U  
(

400 600m )  
2 3kt

2 3

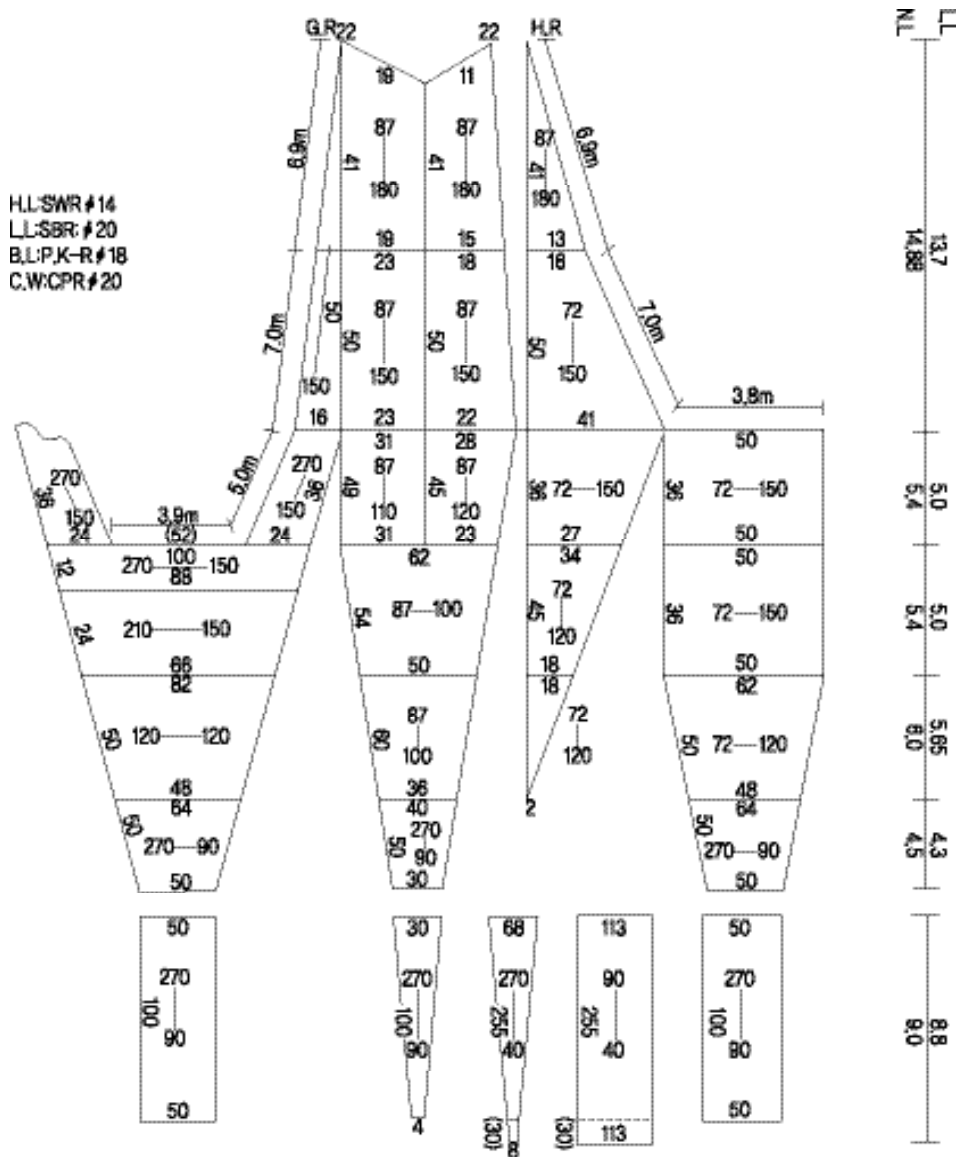
5 10

가

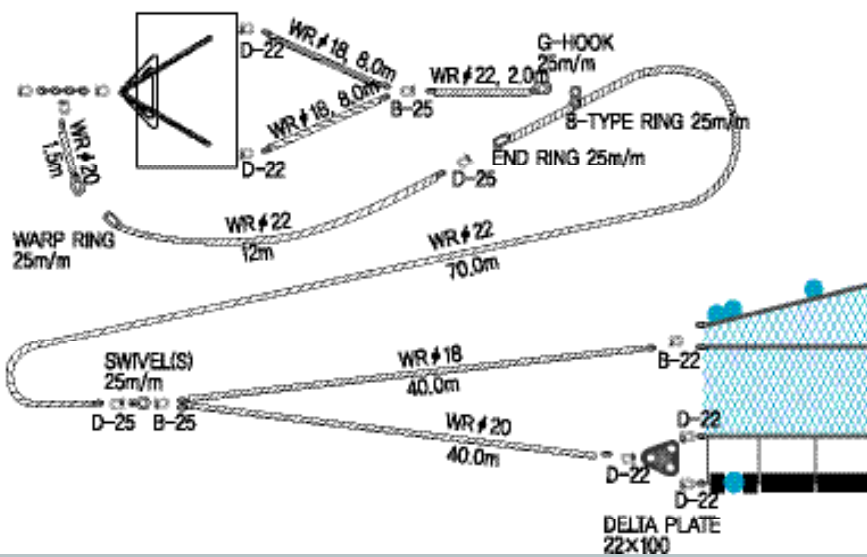
1 4 ,1

20

)

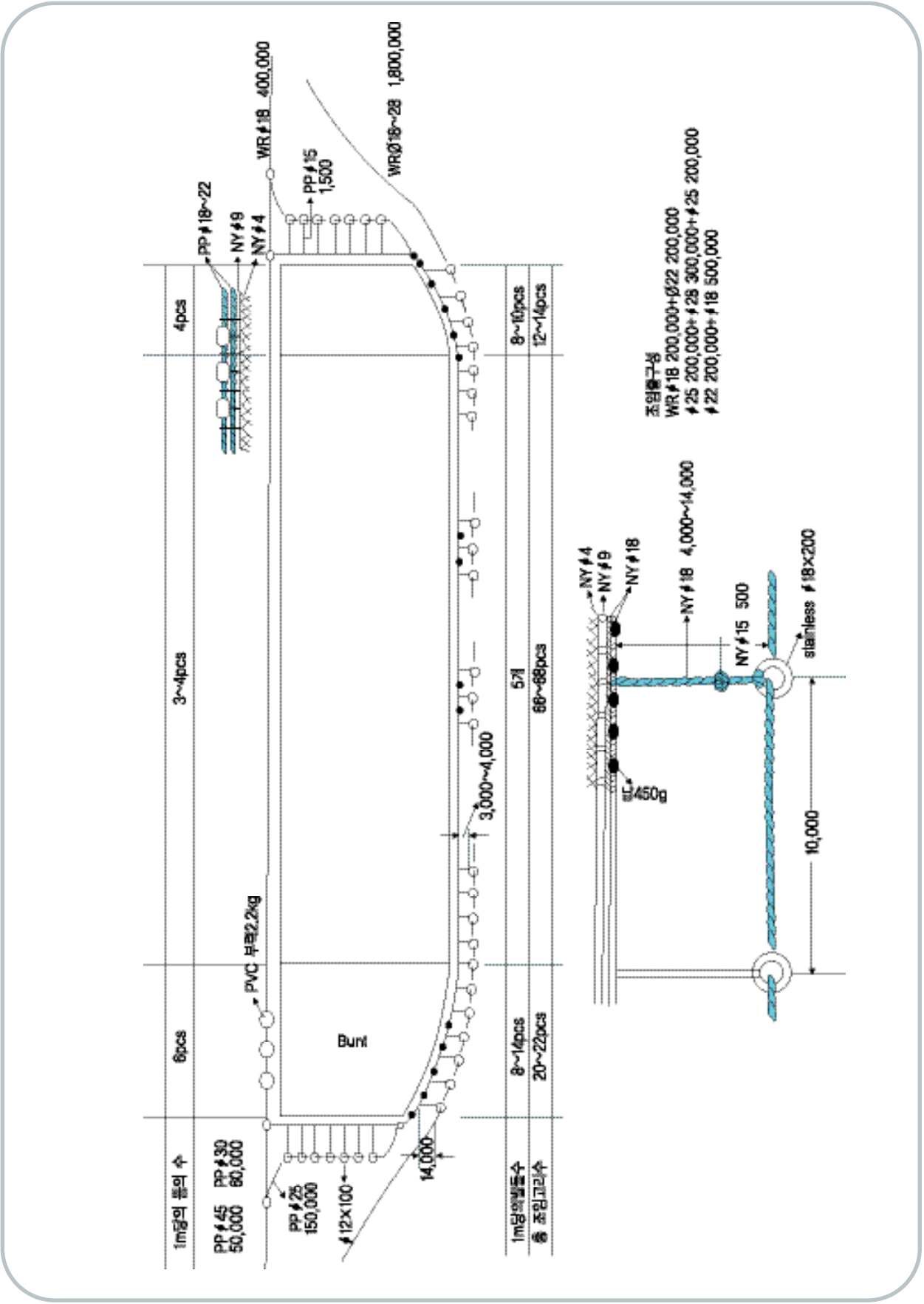


NET PENDANT & HAND ROPE



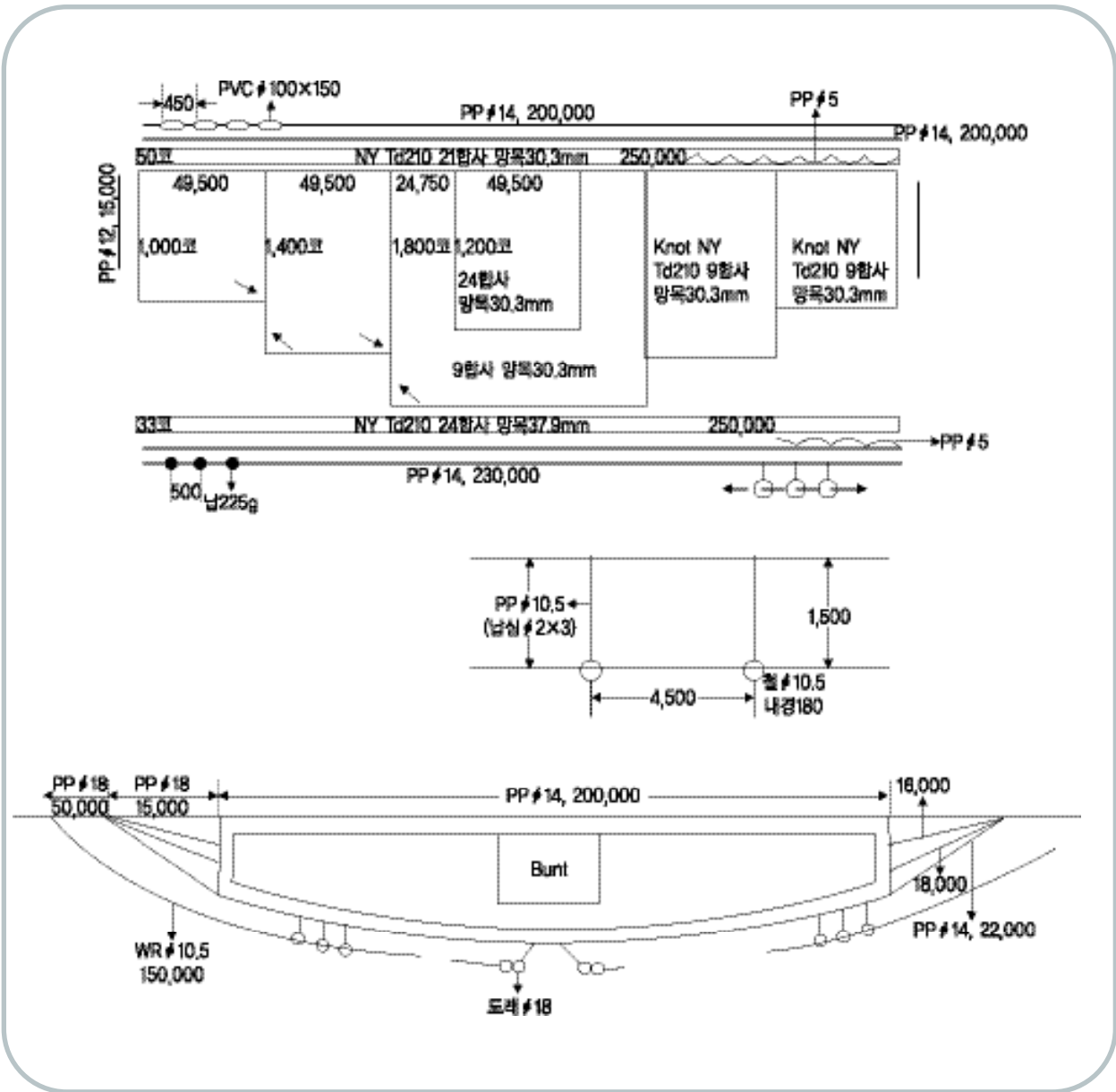


: , 4 7 2 3  
 : 50 150m,  
 : , , , , , ,  
 :  
 140 14~16  
 .  
 . 가  
 , , , . 가  
 ,  
 . 가  
 . 100m 4 , 100m  
 3 , 100m 2 2.5  
 . 가 ,  
 , 2 3 , 1 2  
 . 10  
 .  
 , 1 1 5 6  
 20 .





)



: 7~3 , 8 10

: 15~30m,

:

:

:

NY Td210 9 24 30 35mm

67% , 77% , 50%

FRP 8 , 250 5~8

가

3 1

가 ,

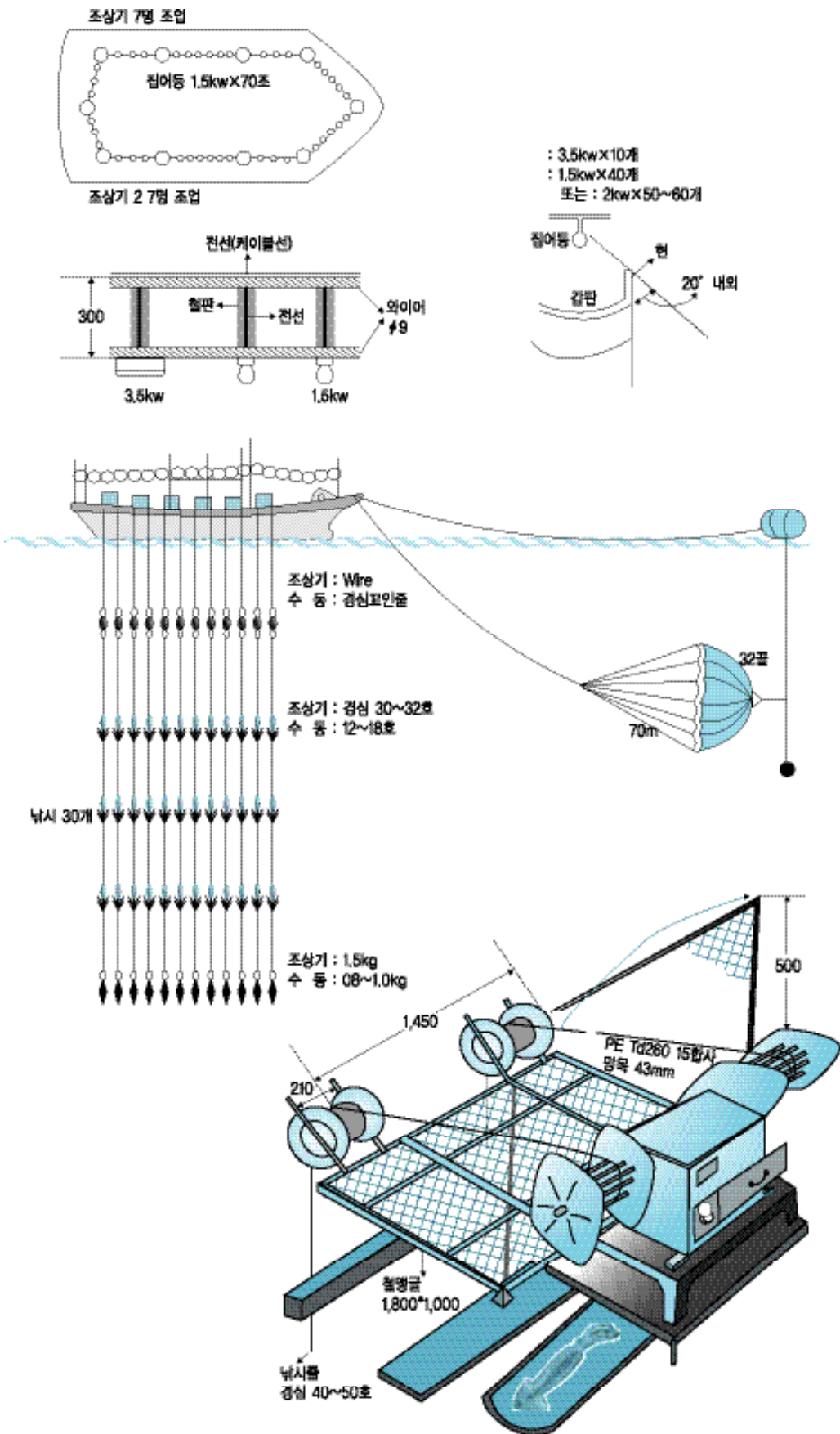
4 3 ,

1 4

5 ,

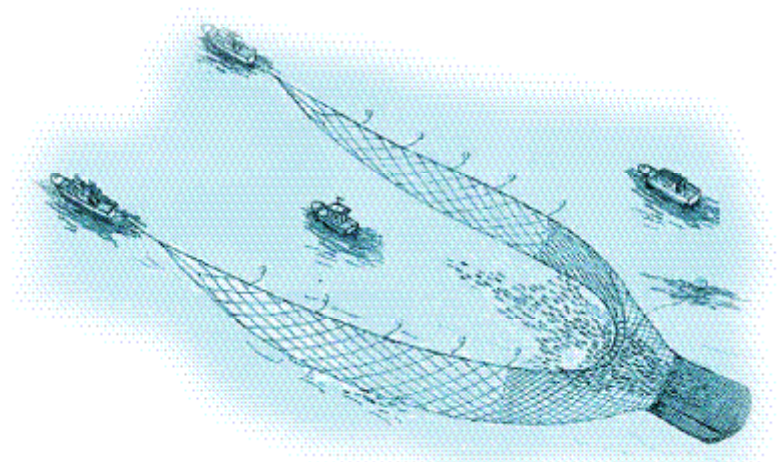
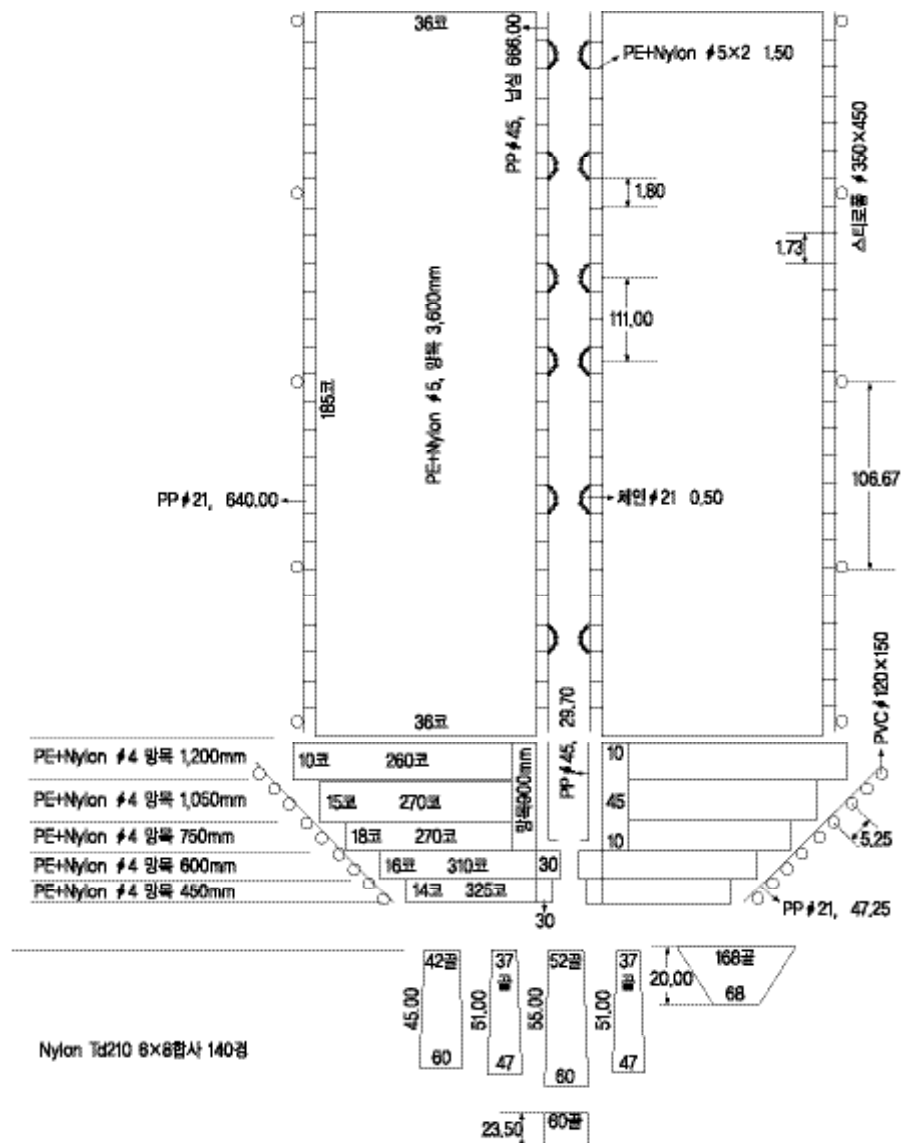
2 .

)



: 8~12  
 : 100~300m,  
 :  
 :  
 :  
 가 30 1  
 ,  
 40 50 , 12 14 , 1m50cm .  
 . 1 2kw  
 , 20 30 1 2  
 25 30kw , 20 가 가  
 .  
 가 ,  
 . , , 1m70cm  
 1 .  
 가 가 가 .  
 가 가 ,  
 가 가 가  
 , 가 1 2  
 가 가 가 가  
 22 가

)





: 7~1 , 8 11

: 50~100m,

:

:

:

800 2 , 10 15 , 15 25 , 250 300 50 70 500  
 ,가 60 100 350 500 1 14 16 , 1 2 3  
 200 350 1 2 3 , 30 50  
 17 . 가

, ,

가

가 가

.

,

가

.

가

가

.

2

가

가

.

1가

500

700m

2

30 40

.

가

.

가

1

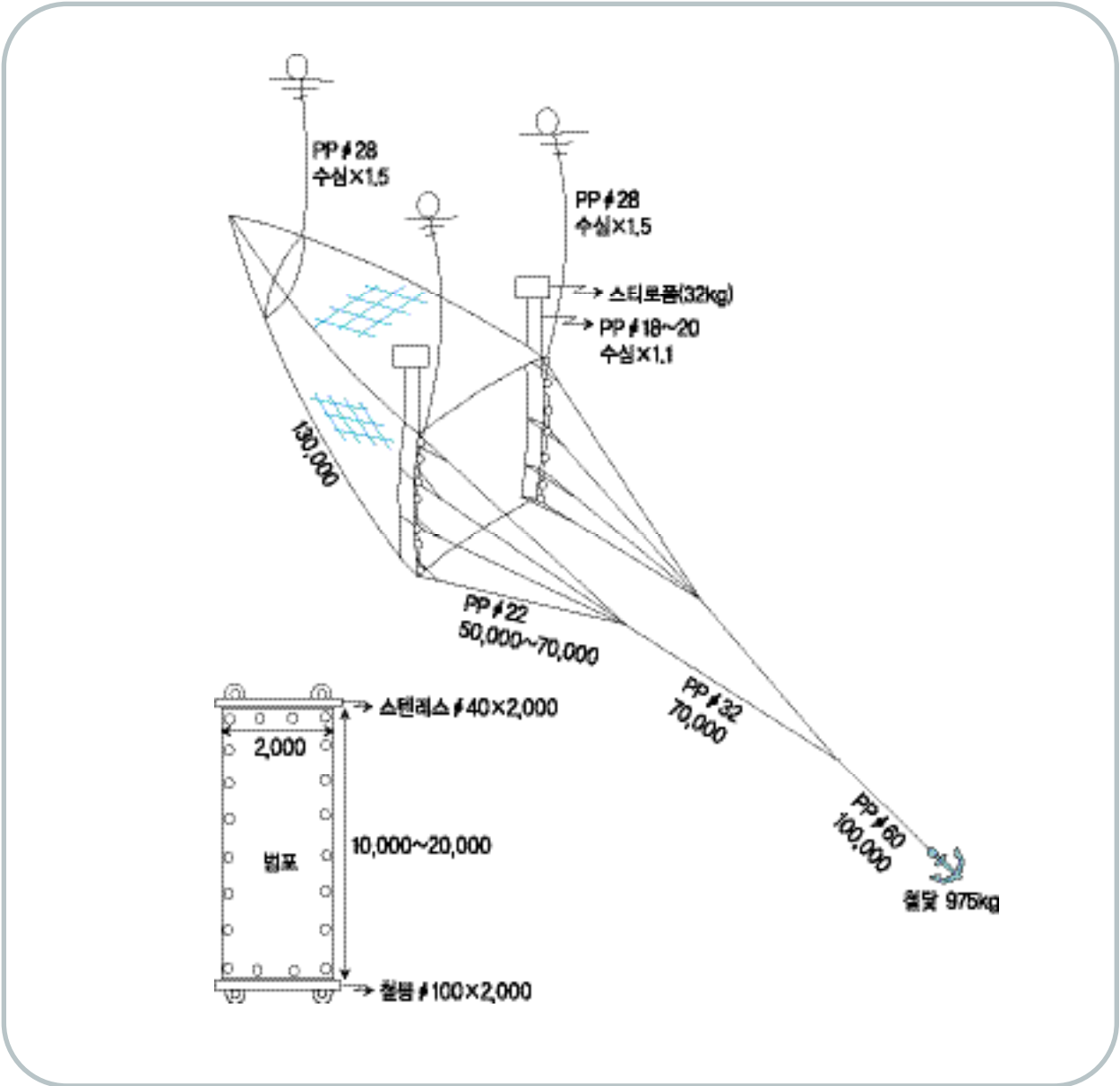
.

, 1

5 6

.

)



: 3~6 , 8~12

: 50m,

: 1~4 - ,

4~6 - , , ,

7~12 -

:

가 1.5~2m,

10~20m

가 30~40m

130m .

975kg ,

PP 60mm 100m,

( ) PP 32mm 70m, (

) PP 22mm 50~70m .

가 30m,

30~40m .

2 3

,

3가

4가

.

가

( 30m)

.

180°

,

가

1 10 .

1 1

,가

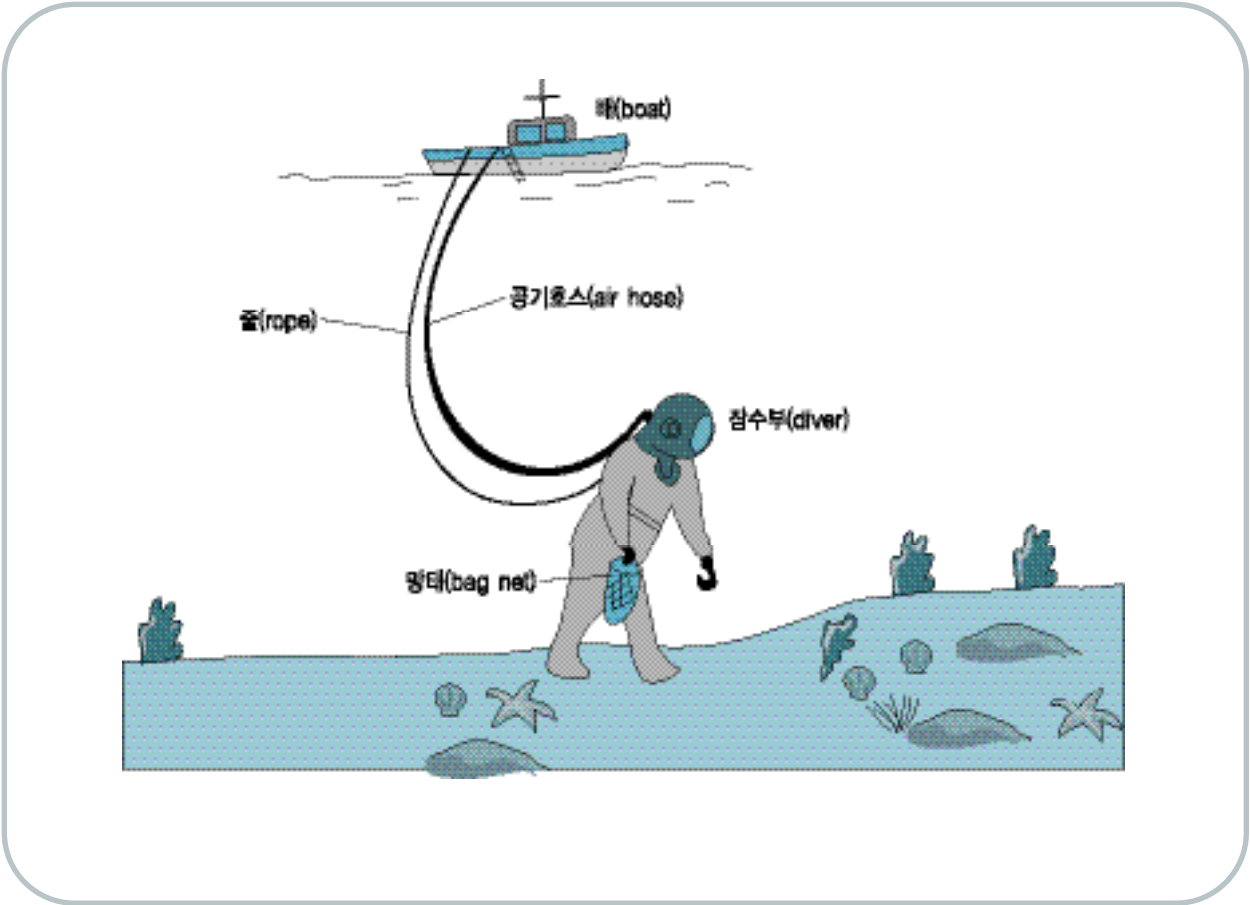
1 8 (1 1 ) ,

1 30 ,

1 1 .

가

)



: 3~6, 9~11

: 35~50m,

:

:

FRP 5 8

150 250

1 2 ,

1 , 2 3

가 , (weight), ,

, ,

가 .

10~15HP ,

150m .

PP 10mm .

가

가

30m 1 ~1

30 , 50m 20~30

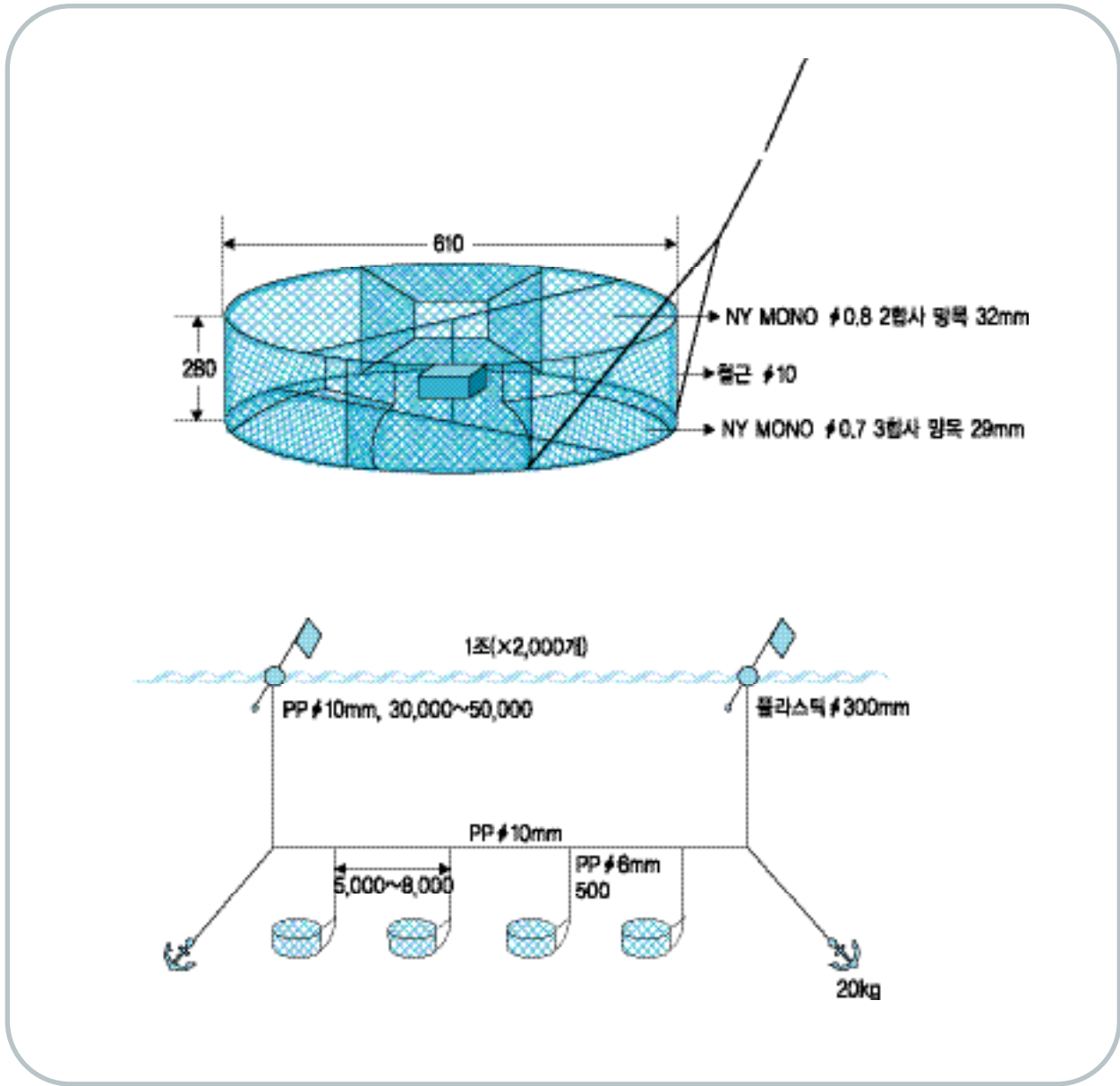
, 1 5~6 .

, 50m

30m 1 , 10m

20~30 .

)  
(1)



: , 1~3 : , 9~12 : ( )

: 30~50m,

: (90% ), , ,

: , ,

:

10mm

NY mono 0.8mm 2

32mm

, NY mono 0.7mm 3 29mm

3

5 8m,

5m ,

2,000

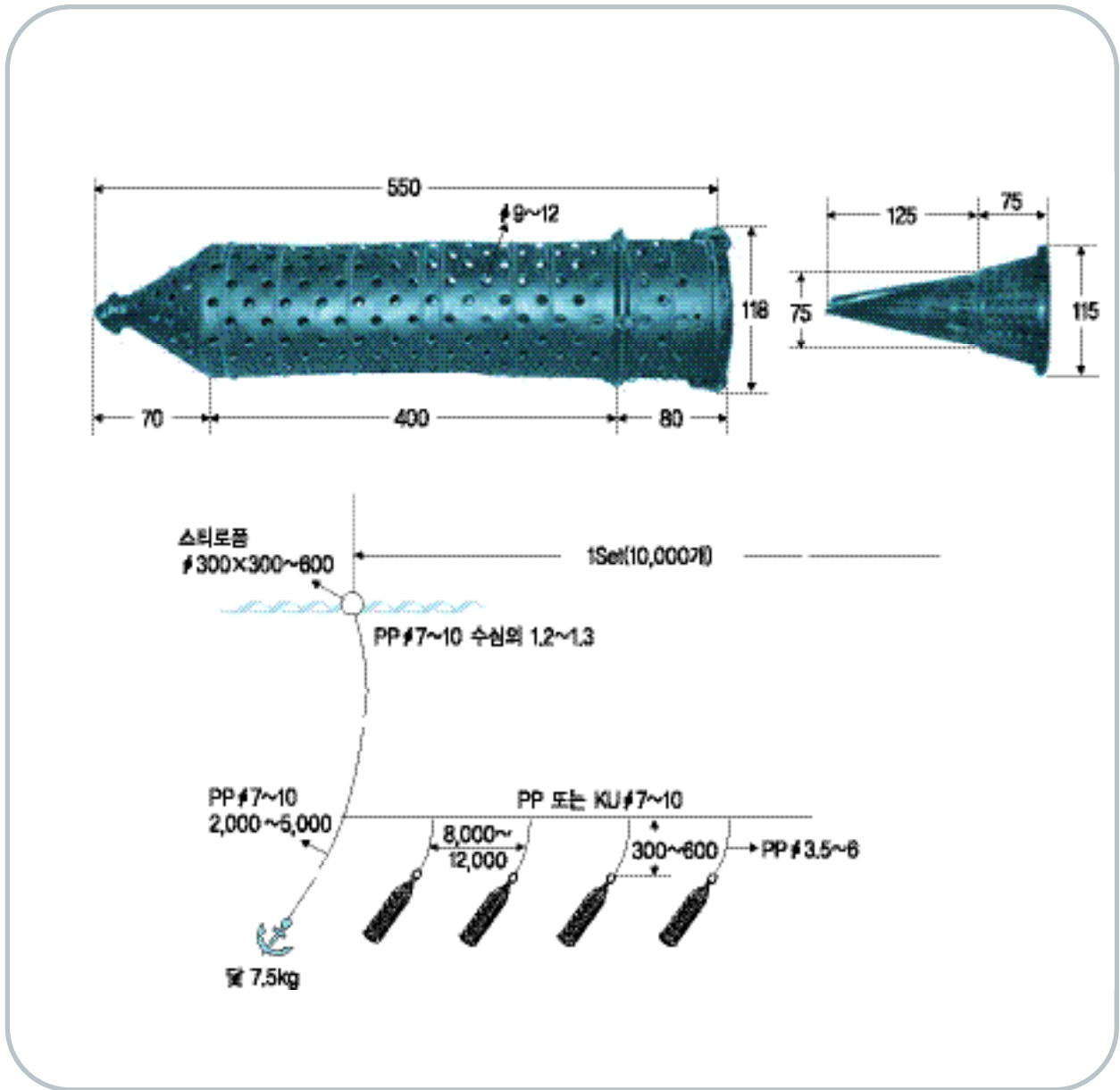
1

2

가

10~15

(2)





:

: 30~120m,

:

95%,

5%

:

,

60~70

7~10

12,000~15,000

8~12m

100 ~1000

가

10,000

6~7

가

(5,000~6,000)

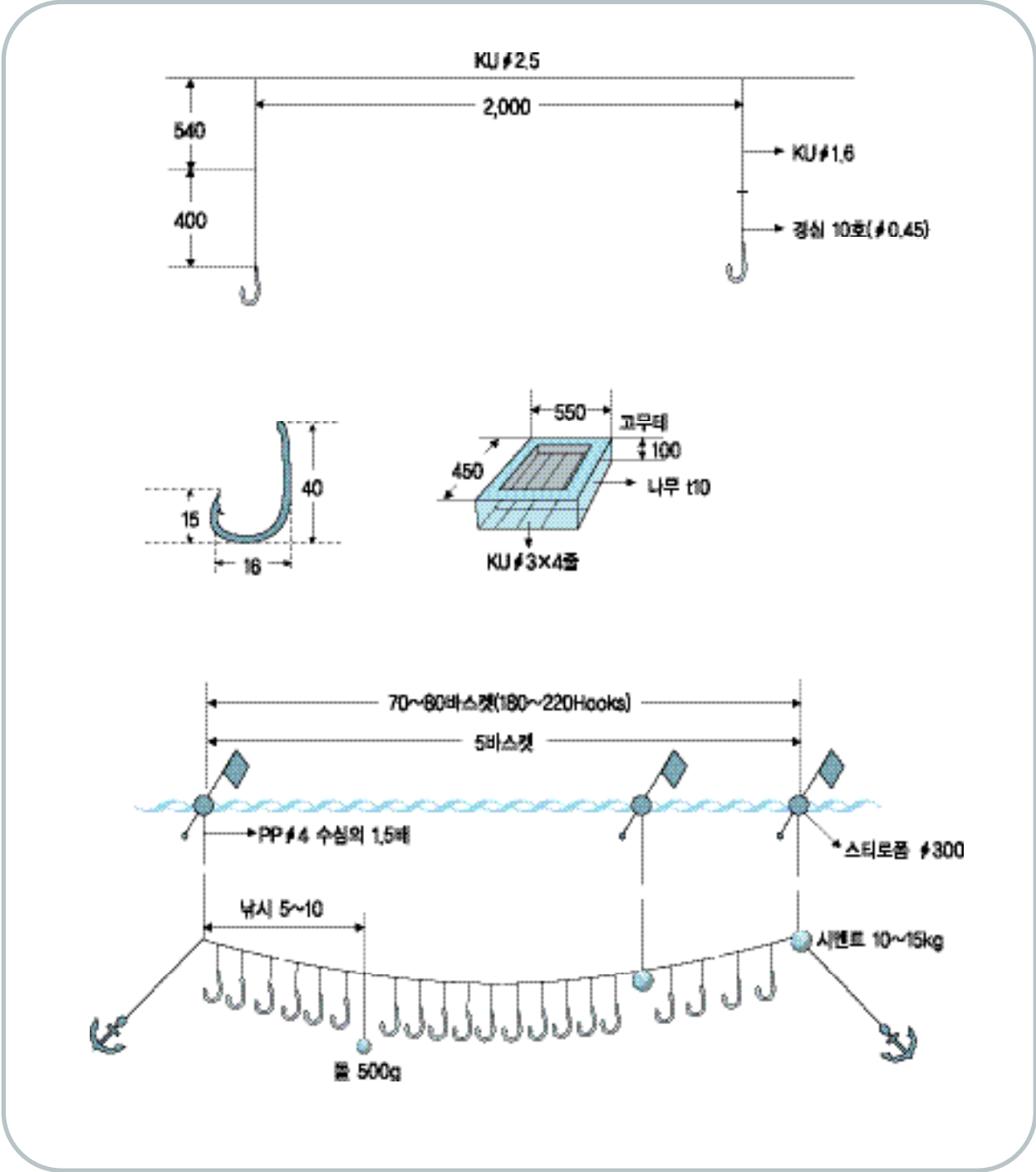
6~8

가 1 1

.1

15 가

)



: ,  
 : 80~150m, ,  
 : , ,가 ,  
 : , , , ,  
 :  
 2m KU 2.5mm , KU 1.6mm 10  
 ,1 200 .  
 50~100mm PVC 500g  
 .5 1 , 10~15kg  
 .  
 가 30 , ,  
 . 1 300 500 1 70 80  
 . 30 1 가  
 , , .  
 가 , 1 4 5 , 2 3 .  
 1 2 1 1 30 , 4 5 .



[4.

]

가.

1)

가)

4-1 , 4-1 ,

46.53 .

가 (139.00 )

(134.67 ) , (90.20 ) , (82.35 ) ,

(81.20 ) , (79.33 ) , 가가

(4.21 ) . 가 139.00 , 가

3.22 . 가

가 (36.86 ) , 가가 (00.00 )

11.22 ,

(36.75 ) (36.33 ) , (30.67 ) ,

(18.50) , (17.17 ) , 가

(5.33 ) . 가가

(1.79 ) , 가가 (10.79 ) .

가 45.00 , 가

1.00 .

3.49 5.50 . 가

12.00 , 가 0.62 . 가

10.00 , 가 1.00 .

4-1.

( : , )

		( )	( )						( )
	139.00	135.00	99.65	129.00	139.00	79.68	78.17	39.00	
	2.97	134.00	62.00	56.00	139.00	47.24	57.00	39.00	
	46.53	134.67	82.35	90.20	139.00	64.57	63.97	39.00	
	34.03	0.58	11.69	36.86	0.00	12.71	8.75	0.00	
	46.00	27.00	41.00	25.00	10.00	43.00	46.00		
	0.70	9.00	26.00	13.00	5.00	23.00	27.00		
	11.22	17.17	36.75	18.50	7.80	30.67	36.33		
	8.95	7.76	7.18	3.87	1.79	10.79	9.50		

)

( )

4 - 2

136,652.44

(1,332,191.31 ) ,

(2,610.86 ) .

(2,052,345.16 ) ,가

가

가가

(2,956.76 ) .

681,406.55 .

(3,660,094.15 ) ,

(1,435,007.33 )

(1,385,490.86 ) ,

가

(6,066.67 ) .

가가

(2,834,579.84 ) ,

가가

(611.01 ) .

87% .

21,900.00

62,662.15

가

200,000.00 .

70,370.00

79,604.23 ,

가

240,000.00 .

4-2.

( : )

		7,594,000.00	0.96	7,706,496.00	1.00
		0.00	0.00	5,400.00	0.04
		136,652.4	0.12	681,406.55	0.87
		641,085.19	0.18	1,097,947.65	0.19
		107,353.00	0.46	780,000.00	1.00
		0.00	0.00	70,697.00	0.54
		30,567.17	0.13	242,610.83	0.87
		40,932.7	0.17	265,851.06	0.17
( )		158,000.00	0.07	2,223,340.00	0.99
		22,500.00	0.01	650,000.00	0.93
		72,583.33	0.05	1,435,007.33	0.95
		48,779.52	0.02	803,710.00	0.02
( )		23,500.00	0.24	244,500.00	1.00
		200.00	0.00	37,000.00	0.76
		12,210.00	0.15	101,950.00	0.85
		6,785.4	0.08	83,959.80	0.08
		7,594,000.00	0.50	7,706,496.00	0.89
		160,696.00	0.11	325,319.00	0.50
		1,332,191.31	0.24	3,660,094.15	0.76
		2,052,345.16	0.12	2,834,579.48	0.12
		150,000.00	0.17	2,939,500.00	1.00
		1,500.00	0.00	35,000.00	0.83
		39,014.29	0.07	1,385,490.86	0.93
		55,352.82	0.06	1,281,761.82	0.06
		105,000.00	0.15	686,700.00	0.97
		800.00	0.03	30,000.00	0.85
		31,980.00	0.07	350,640.00	0.93
		43,244.56	0.05	307,196.52	0.05
		315,000.00	0.71	1,039,700.00	1.00
		0.00	0.00	25,000.00	0.29
		86,450.00	0.25	368,150.00	0.75
		117,570.04	0.33	492,438.30	0.33
( )		0.00	0.00	6,600.00	1.00
		0.00	0.00	5,400.00	1.00
		0.00	0.00	6,066.67	1.00
		0.00	0.00	611.01	0.00

( : )

( )		10,000.00	0.17	55,000.00	0.86
		8,000.00	0.14	40,000.00	0.83
		8,666.67	0.15	48,333.33	0.85
		1,154.70	0.01	7,637.63	0.01
		85,360.00	0.50	85,360.00	0.90
		8,460.00	0.10	45,210.00	0.50
		39,197.20	0.34	65,800.00	0.66
		32,163.26	0.22	17,871.39	0.22
		80,000.00	0.17	400,000.00	1.00
		0.00	0.00	12,000.00	0.83
		20,000.00	0.05	125,642.86	0.95
		34,641.02	0.08	158,798.28	0.08
		40,000.00	0.75	59,000.00	1.00
		0.00	0.00	9,620.00	0.25
		5,741.25	0.15	23,007.50	0.85
		13,907.47	0.26	17,314.24	0.26
		6,500.00	0.48	71,080.00	1.00
		0.00	0.00	6,000.00	0.52
		3,508.33	0.11	37,888.33	0.89
		2,956.76	0.18	34,679.73	0.18
		10,127.00	0.12	74,983.00	1.00
		0.00	0.00	6,000.00	0.88
		2,610.86	0.03	53,089.71	0.97
		3,839.88	0.05	23,357.82	0.05
		600,000.00	0.49	630,000.00	1.00
		0.00	0.00	23,746.00	0.51
		71,358.90	0.10	267,210.30	0.90
		186,183.13	0.15	249,866.72	0.15
		200,000.00	0.45	240,000.00	1.00
		0.00	0.00	18,000.00	0.55
		21,900.00	0.09	70,370.00	0.91
		62,662.15	0.14	79,604.23	0.14



4-3

176,959.60  
 (1,711,474.00 ),  
 (294,666.67 ) .  
 (2,285,604.16 ) , 가 가 (4,468.74 )  
 114,437.22 ,  
 가 (377,920.92 ),  
 (150,000.00 ) . 가 가 (393,867.35 ) , 가 (2,934.49 ) .  
 7,000.00 10,593.50  
 가 가 30,000.00 .  
 42,900.00 68,212.82 ,  
 가 200,000.00 .

4-3.

( : )

		7,344,720.00	1.00	1,146,540.00	1.00
		0.00	0.00	0.00	0.00
		176,959.60	0.52	114,437.22	0.47
		611,998.40	0.43	190,347.31	0.43
		135,000.00	1.00	854,000.00	0.86
		0.00	0.14	0.00	0.00
		28,366.67	0.46	149,450.00	0.54
		53,009.68	0.47	345,579.94	0.47
		678,000.00	1.00	159,000.00	0.19
( )		170,000.00	0.81	0.00	0.00
		294,666.67	0.97	26,500.00	0.03
		193,785.10	0.08	64,911.8	0.08
		87,000.00	1.00	107,000.00	1.00
		0.00	0.00	0.00	0.00
( )		19,200.00	0.78	20,800.00	0.22
		31,008.24	0.41	39,083.39	0.41
		7,344,720.00	1.00	1,146,540.00	1.00
		0.00	0.00	0.00	0.00
		1,711,474.00	0.67	377,920.92	0.33
		2,285,604.16	0.40	393,867.35	0.40

		240,000.00	1.00	580,000.00	0.71
		2,000.00	0.29	0.00	0.00
		103,285.71	0.80	150,000.00	0.20
		101,233.58	0.34	258,134.33	0.34
		674,000.00	1.00	182,000.00	0.82
		0.00	0.18	0.00	0.00
		152,980.00	0.64	53,340.00	0.36
		292,119.70	0.43	80,734.61	0.43
		102,100.00	0.32	214,600.00	0.91
		0.00	0.09	0.00	0.68
		19,033.33	0.21	55,266.67	0.79
		40,981.00	0.16	91,011.79	0.16
( )		50,000.00	1.00	0.00	0.00
		20,000.00	1.00	0.00	0.00
		30,000.00	1.00	0.00	0.00
		17,320.51	0.00	0.00	0.00
		11,400.00	1.00	11,950.00	0.91
		853.00	0.09	0.00	0.00
		8,562.80	0.70	4,169.80	0.30
		4,468.74	0.43	5,810.73	0.43
		26,500.00	1.00	105,000.00	1.00
		0.00	0.00	0.00	0.00
		8,357.14	0.36	26,428.57	0.64
		11,010.28	0.44	41,620.74	0.44
		35,000.00	1.00	8,300.00	0.58
		0.00	0.42	0.00	0.00
		6,606.25	0.88	1,037.50	0.12
		11,791.54	0.26	2,934.49	0.26
		15,000.00	1.00	23,000.00	0.70
		2,000.00	0.30	0.00	0.00
		8,000.00	0.68	4,833.33	0.32
		5,329.17	0.35	9,020.35	0.35
		18,878.00	1.00	39,744.00	0.97
		0.00	0.03	0.00	0.00
		7,155.86	0.75	7,106.29	0.25
		6,196.85	0.41	14,866.58	0.41
		240,000.00	1.00	150,000.00	1.00
		0.00	0.00	0.00	0.00
		35,680.00	0.53	34,760.00	0.47
		72,818.20	0.41	50,546.77	0.41
		30,000.00	1.00	200,000.00	1.00
		0.00	0.00	0.00	0.00
		7,000.00	0.26	42,900.00	0.74
		10,593.50	0.37	68,212.82	0.37

)

4-4 , , , .  
940,348.22 ,  
(4,518,283.61 ), (2,928,087.46 )  
(1,504,893.00 ) , 가 (19,147.17 ) .  
가가 (3,226,251.92 ) , 가  
(1,852.03 ) .  
898,770.37 ,  
(4,877,681.58 ),  
(2,131,920.75 ) (1,208,479.67 ) .  
가가 (1,208,479.67 ) , 가  
(1,333.00 ) .  
41,577.84 ,  
(796,166.71 ), (296,413.33  
) , (76,991.17 ) , (-  
359,397.97 ), (-8,619.13 ), (-7,374.49 ),  
(-6,429.58 ), (-5,537.67 ) (-  
2,149.30 ) . 가가  
(1,347,836.02 ) , 가가  
(3,260.67 ) .  
91,152.70 126,397.56  
, 가 400,990.00 .  
36,007.82 67,321.91 , 가  
235,355.00 .  
38,571.66 65,190.37 , 가  
165,635.00 .

4-4.

( : )

		9,879,188.97	9,732,985.47	3,149,800.00
		11,235.00	9,690.00	(3,984,570.60)
		940,348.22	898,70.37	41,577.84
		1,899,736.02	1,919,866.62	595,400.19
		1,000,000.00	668,000.00	332,000.00
		128,962.00	138,570.00	(19,195.00)
		336,523.50	259,532.33	76,991.17
		330,851.52	202,709.32	135,265.73
		5,090,080.00	2,704,550.00	3,149,800.00
( )		2,058,264.47	1,313,80.00	(88,155.00)
		2,928,087.64	2,131,920.75	796,166.71
		1,107,933.20	525,104.06	1,256,073.14
		453,217.40	662,093.22	332,979.00
( )		37,205.00	25,146.00	(253,307.94)
		250,251.70	256,681.28	(6,429.58)
		184,382.31	247,47.14	137,292.64
		9,879,188.97	9,732,985.47	841,533.67
		795,812.15	729,922.95	(3,984,570.60)
		4,518,283.61	4,877,681.58	(359,397.97)
		3,226,251.92	3,123,799.78	1,347,836.02
		2,406,67.10	2,137,414.71	1,062,07.11
		372,538.00	43,399.00	(114,587.05)
		1,504,893.00	1,208,479.67	296,413.33
		930,805.73	997,528.31	360,81.39
		331,257.27	317,242.43	21,201.8
		14,860.00	15,242.00	(10,608.11)
		179,512.27	174,300.03	5,212.24
		150,47.71	144,34.76	12,511.25
		433,075.62	411,411.54	21,664.09
		39,000.00	21,190.00	5,147.32
		194,239.53	180,085.78	14,153.76
		176,67.69	176,583.60	6,959.81
		54,316.00	21,493.00	32,823.00
( )		43,987.00	19,116.00	22,637.00
		47,903.33	20,653.00	27,250.33
		5,598.73	1,333.00	5,160.32
		31,700.00	38,020.00	(1,957.00)
( )		28,000.00	31,957.00	(8,336.00)
		29,900.00	35,437.67	(5,537.67)
		1,852.03	3,129.7	3,260.67

( : )

		57,831.00	47,623.00	10,208.00
		15,086.00	18,498.50	(12,459.00)
		31,223.60	33,372.90	(2,149.30)
		20,767.79	12,892.38	9,455.4
		891,418.20	289,786.00	601,632.20
		20,000.00	11,071.00	(7,484.00)
		237,113.60	86,861.14	150,252.4
		340,501.63	103,529.70	238,500.01
		50,000.00	58,712.00	7,133.00
		13,000.00	14,842.00	(43,712.00)
		23,627.75	32,246.88	(8,619.13)
		12,580.51	18,405.30	17,784.57
		22,000.00	22,176.00	10,310.00
		16,000.00	9,690.00	(4,665.00)
		19,147.17	14,892.92	4,254.25
		2,134.36	4,506.69	6,009.17
		98,051.00	100,531.15	13,072.00
		30,700.00	26,928.00	(22,268.00)
		58,791.86	66,166.34	(7,374.49)
		24,997.86	23,652.71	12,025.19
		544,877.03	496,750.00	293,055.03
		11,235.00	35,666.00	(75,855.00)
		218,361.12	176,213.64	42,147.49
		213,614.68	165,147.85	106,631.73
		400,990.00	235,355.00	165,635.00
		5,798.00	181.00	(7,551.50)
		91,152.70	36,007.82	38,571.66
		126,397.56	67,321.91	65,190.37

4-5	,	,	,
가	,	,	.
433,266.07	,		
(2,229,707.88 )	,	(1,301,898.80 )	
(553,804.38 )	.	가가	
(1,516,320.81 )	,	가가	(980.73 )
		243,898.01	,
		(1,357,778.70 )	,
)	(325,657.59 )	.	(421,106.14
	(982,134.32 )	,	가가
(0.00 )	.		
	,		69,370.23
, 8,487.36	33,973.20	.	
	가	31,577.91	,
	(142,175.40 )	,	가
)	(54,936.72 )	.	가가
(147,138.66 )	,	가	가가
			(30.55 )
			10,773.67
			12,715.34
,		42,640.00	1,878.00
	28,213.89	57,619.02	,
			180,915.00
900.00	.	가	3,112.50
3,955.91	,	12,000.00	545.00

4-5.

( : )

												가	
		4,347,990.00	0.82	3,021,150.00	0.70	1,094,500.00	0.38	131,081.41	0.06	368,313.23	0.09	385,324.80	0.50
		1,361.00	0.06	590.00	0.03	0.00	0.00	0.00	0.00	60.00	0.00	130.00	0.00
		433,266.07	0.44	243,898.01	0.34	69,370.23	0.07	8,487.36	0.01	33,973.20	0.04	31,577.91	0.07
		913,913.51	0.15	549,286.28	0.14	170,433.65	0.07	20,552.4	0.01	78,972.43	0.02	70,056.53	0.08
		431,000.00	0.65	94,955.00	0.53	46,000.00	0.10	30,000.00	0.06	28,000.00	0.04	39,000.00	0.15
		47,300.00	0.30	72,000.00	0.14	4,870.00	0.04	800.00	0.01	3,200.00	0.02	980.00	0.01
		123,938.83	0.40	83,653.17	0.41	15,645.50	0.06	9,883.33	0.03	8,100.00	0.03	16,772.50	0.06
		150,716.31	0.13	11,123.61	0.14	15,399.4	0.02	11,178.63	0.02	9,768.93	0.01	15,951.06	0.05
	( )	1,951,700.00	0.72	586,860.00	0.25	203,600.00	0.11	59,000.00	0.02	118,000.00	0.06	110,155.00	0.05
		727,000.00	0.54	296,680.00	0.14	82,330.59	0.04	10,000.00	0.01	12,500.00	0.00	32,500.00	0.01
		1,301,898.80	0.60	421,106.14	0.20	127,888.43	0.06	27,352.81	0.01	78,632.40	0.04	60,823.23	0.03
		411,168.13	0.07	110,953.23	0.04	41,117.35	0.02	19,164.97	0.01	39,940.12	0.02	36,021.89	0.01
	( )	475,688.93	0.72	145,868.00	0.49	21,719.94	0.38	12,500.00	0.03	38,124.29	0.07	10,360.00	0.08
		9,150.00	0.24	10,478.00	0.21	1,488.00	0.01	180.00	0.00	1,800.00	0.03	1,850.00	0.00
		144,495.8	0.44	73,306.98	0.36	9,413.52	0.07	2,267.26	0.01	12,028.63	0.05	4,817.80	0.04
		162,466.21	0.15	63,650.26	0.10	7,461.73	0.10	3,980.23	0.01	12,223.20	0.01	3,715.01	0.03
		4,347,990.00	0.59	3,021,150.00	0.41	1,094,500.00	0.29	131,081.41	0.02	368,313.23	0.07	385,324.80	0.05
		377,005.00	0.30	182,676.00	0.08	60,373.00	0.02	180.00	0.00	18,419.00	0.01	2,500.00	0.00
		2,229,707.88	0.45	1,357,778.70	0.27	391,660.34	0.10	42,465.00	0.01	195,867.54	0.04	142,175.40	0.03
		1,516,320.81	0.09	982,134.32	0.10	313,049.84	0.09	40,697.90	0.01	135,376.06	0.02	147,138.66	0.02
		1,241,478.99	0.58	623,100.00	0.46	386,500.00	0.38	24,300.00	0.01	63,355.40	0.04	110,208.00	0.06
		12,700.00	0.28	12,209.00	0.22	14,900.00	0.05	0.00	0.00	1,600.00	0.02	1,750.00	0.02
		553,804.38	0.39	325,657.59	0.28	142,354.47	0.21	8,663.47	0.01	33,652.40	0.03	54,936.72	0.05
		517,585.01	0.12	270,162.80	0.08	145,934.89	0.13	10,124.53	0.00	29,347.14	0.01	52,155.45	0.01
		136,257.29	0.52	86,536.76	0.51	13,250.29	0.04	3,560.00	0.01	11,376.00	0.07	34,335.00	0.12
		7,300.00	0.32	3,824.00	0.25	595.00	0.04	208.00	0.01	1,000.00	0.03	1,500.00	0.07
		75,387.39	0.43	49,163.92	0.32	7,180.61	0.04	1,812.06	0.01	6,711.44	0.05	17,532.00	0.09
		62,719.31	0.07	39,359.06	0.11	6,018.82	0.00	1,520.86	0.00	5,266.8	0.01	15,359.83	0.02
		162,994.26	0.47	136,236.25	0.53	17,323.02	0.08	3,541.00	0.01	13,264.34	0.05	51,985.00	0.15
		5,860.00	0.28	11,300.00	0.27	1,560.00	0.04	50.00	0.00	910.00	0.03	1,250.00	0.03
		75,120.95	0.38	56,340.88	0.40	7,769.58	0.05	1,630.33	0.01	6,598.20	0.04	18,407.50	0.07
		74,100.06	0.07	51,724.8	0.12	7,067.13	0.02	1,653.36	0.00	6,204.90	0.01	24,621.91	0.05
	( )	16,180.00	0.76	590.00	0.03	2,173.00	0.10	1,000.00	0.05	1,500.00	0.07	330.00	0.02
		13,800.00	0.72	590.00	0.03	1,760.00	0.08	900.00	0.05	1,200.00	0.06	270.00	0.01
		15,160.00	0.73	590.00	0.03	1,916.33	0.09	966.67	0.05	1,300.00	0.06	303.33	0.01
		1,225.89	0.02	0.00	0.00	224.04	0.01	57.7	0.00	173.21	0.01	30.55	0.00

( : )

												가	
( )		15,680.00	0.43	18,730.00	0.49	1,268.00	0.04	47.00	0.00	1,000.00	0.03	2,750.00	0.08
		13,540.00	0.39	13,730.00	0.42	1,120.00	0.03	36.00	0.00	95.00	0.00	2,000.00	0.06
		14,720.00	0.42	15,936.67	0.45	1,196.00	0.03	43.33	0.00	698.33	0.02	2,416.67	0.07
		1,086.83	0.02	2,551.10	0.04	74.08	0.00	6.35	0.00	522.50	0.02	381.88	0.01
		17,663.00	0.37	17,160.00	0.43	3,104.00	0.07	0.00	0.00	2,299.00	0.09	14,800.00	0.50
		3,958.00	0.13	7,950.00	0.27	696.00	0.03	0.00	0.00	1,245.00	0.04	2,421.50	0.13
		9,440.60	0.26	11,158.60	0.34	1,447.60	0.04	0.00	0.00	1,666.20	0.05	9,090.30	0.28
		6,557.16	0.10	4,401.63	0.06	1,031.20	0.02	0.00	0.00	401.90	0.02	4,778.26	0.15
		100,318.00	0.53	150,750.00	0.56	12,248.00	0.16	2,158.00	0.01	1,412.00	0.03	22,000.00	0.18
		4,941.00	0.33	3,600.00	0.26	200.00	0.00	50.00	0.00	270.00	0.00	600.00	0.03
		34,047.57	0.43	40,872.29	0.41	3,385.71	0.06	531.86	0.01	876.43	0.02	6,931.00	0.08
		35,782.05	0.08	54,946.85	0.11	4,461.04	0.06	769.20	0.00	407.7	0.01	8,020.24	0.05
		45,300.00	0.77	18,000.00	0.55	2,720.00	0.06	600.00	0.02	1,400.00	0.03	9,567.00	0.22
		4,529.00	0.25	7,200.00	0.15	520.00	0.01	0.00	0.00	60.00	0.00	481.00	0.03
		15,920.25	0.43	10,968.75	0.40	1,085.00	0.04	180.00	0.01	610.00	0.02	3,289.13	0.10
		15,139.36	0.17	4,020.40	0.13	727.29	0.02	206.95	0.01	473.29	0.01	3,111.35	0.07
		3,790.00	0.25	11,550.00	0.70	980.00	0.09	340.00	0.02	1,480.00	0.09	10,655.00	0.48
		1,361.00	0.06	6,000.00	0.35	650.00	0.04	30.00	0.00	130.00	0.01	130.00	0.01
		2,202.83	0.16	8,244.17	0.60	848.17	0.06	205.00	0.01	721.17	0.05	2,671.58	0.14
		982.73	0.08	1,995.30	0.13	115.98	0.02	123.73	0.01	612.23	0.04	4,109.96	0.18
		61,658.00	0.76	26,892.00	0.40	2,534.00	0.04	800.00	0.01	4,000.00	0.06	5,300.00	0.10
		16,160.00	0.49	6,790.00	0.12	70.00	0.00	12.00	0.00	700.00	0.02	667.00	0.01
		42,080.86	0.63	17,095.71	0.26	1,487.43	0.02	235.86	0.00	2,207.14	0.03	2,719.49	0.05
		15,716.42	0.08	9,186.08	0.10	937.69	0.01	302.97	0.01	1,135.4	0.01	1,657.19	0.03
		276,000.00	0.82	163,940.00	0.46	14,000.00	0.07	2,270.00	0.01	25,000.00	0.06	30,750.00	0.28
		16,670.00	0.38	7,494.00	0.14	0.00	0.00	10.00	0.00	333.00	0.00	338.00	0.00
		91,752.45	0.52	62,77.36	0.33	6,37.36	0.04	567.55	0.00	3,303.00	0.02	12,061.40	0.07
		87,090.89	0.11	62,850.42	0.10	5,440.8	0.02	683.96	0.00	7,232.91	0.02	9,787.69	0.08
		42,640.00	0.46	180,715.00	0.77	8,200.00	0.60	0.00	0.00	0.00	0.00	12,000.00	0.18
		1,878.00	0.18	900.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	545.00	0.00
		10,773.67	0.33	28,213.89	0.45	2,172.78	0.17	0.00	0.00	0.00	0.00	3,112.50	0.08
		12,715.34	0.10	57,619.02	0.23	2,991.27	0.23	0.00	0.00	0.00	0.00	3,955.91	0.07



4-6 , .

-3% , 10%

(21%), (57%), (40%), (37%),

(20%), (20%) (12%) .

(-26%), (-54%), (-50%), (-31%),

(-19%) (-18%) .

가가 (209%) , 가

(5%) .

228% ,

(704%), (541%), (339%),

(278%) (232%) .

(1,099%) , 가 가가 (12%) .

33% ,

(150%), (51%),

(39%) (34%) .

(209%) , 가 (7%) .

1.95 ,

(7.90 ) , (4.51

), (3.05 ) , (2.34 ) .

가가 (4.64 ) , 가

(0.12 ) .

15% 68% .

5%, 6% , 145% 321%

. 1.44 1.72 5.05

.

4-6.

				( )	
		0.89	35.00	10.64	5.31
		(6.75)	0.00	0.20	0.00
		(0.03)	2.28	1.95	0.33
		0.84	4.91	2.21	0.62
		0.41	1.30	1.82	1.21
		(0.10)	0.30	0.94	0.00
		0.12	0.73	1.50	0.34
		0.21	0.52	0.34	0.51
		0.62	0.54	6.88	0.37
( )		(0.04)	0.12	0.93	0.08
		0.21	0.26	3.05	0.24
		0.28	0.15	2.42	0.13
		0.89	3.00	9.30	0.64
( )		(0.62)	0.27	0.93	0.08
		0.12	1.53	2.34	0.26
		0.41	1.07	2.53	0.20
		0.24	35.00	2.80	0.98
		(1.61)	0.13	0.53	0.03
		(0.31)	7.04	1.42	0.39
		0.66	10.99	0.58	0.32
		0.89	2.50	10.64	0.27
		(0.06)	0.01	0.79	0.05
		0.40	0.94	4.51	0.13
		0.43	0.92	4.64	0.10
		0.07	0.93	0.78	0.97
		(0.05)	0.16	0.39	0.00
		0.02	0.50	0.57	0.33
		0.06	0.34	0.17	0.39
		0.47	5.93	1.98	0.28
		0.01	0.85	0.34	0.00
		0.20	3.39	1.26	0.07
		0.20	3.59	0.69	0.12
		0.60	0.00	8.23	0.00
( )		0.51	0.00	7.32	0.00
		0.57	0.40	7.90	0.00
		0.05	0.20	0.50	0.00

				( )	
( )		(0.07)	0.40	0.75	0.77
		(0.30)	0.20	0.51	0.34
		(0.19)	0.33	0.63	0.51
		0.12	0.12	0.12	0.23
		0.18	10.00	0.77	0.24
		(0.73)	1.00	0.20	0.07
		(0.26)	5.41	0.46	0.13
		0.42	3.49	0.24	0.07
		0.76	4.71	6.00	0.45
		(0.37)	0.00	0.40	0.00
		0.37	2.32	2.13	0.18
		0.45	2.35	1.83	0.18
		0.26	11.43	3.70	0.90
		(2.91)	0.00	0.25	0.00
		(0.54)	2.78	1.47	0.23
		1.07	4.91	1.09	0.33
		0.52	3.25	3.67	5.31
		(0.27)	0.00	0.25	0.07
		0.20	1.01	1.69	1.50
		0.30	1.24	1.59	2.09
		0.33	3.66	6.67	0.52
		(0.73)	0.00	0.65	0.00
		(0.18)	0.76	1.81	0.21
		0.34	1.44	2.16	0.17
		0.55	2.50	1.85	1.15
		(6.75)	0.13	0.44	0.00
		(0.50)	1.03	1.07	0.29
		2.09	1.06	0.48	0.33
		0.93	0.10	5.05	10.50
		(1.21)	0.00	0.00	0.00
		0.15	0.05	1.44	1.45
		0.68	0.06	1.72	3.21

2)

가)

4-7

3.46

(6.91)

(3.8)

(1.54)

가

9.77

0.86

가

(2.70)

(0.54)

8.95

(9.71)

(7.47)

(2.00)

24

가

가

(4.58)

가

(0.71)

4-7. ( : , )

		9.77	1.92	9.77	5.00	7.93	7.93
		0.86	1.16	0.86	1.07	5.88	1.41
		3.46	1.54	3.80	2.76	6.91	3.54
		2.33	0.54	2.70	1.36	1.45	2.44
		24.00	3.00	15.00	24.00	4.00	17.00
		1.00	1.00	3.00	1.00	3.00	1.00
		8.95	2.00	9.47	9.47	3.50	9.71
		5.00	1.41	3.93	6.31	0.71	4.58

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4 - 8

10,154.78

(13,819.5 ), (12,431.43 )

가가

(85,095.00 ) 34,165.78

(38,192.79 ) , 가 (72,315.00 ),

) (25,746.53

4-8.

( : )

		85,095.00	1.00	182,300.00	1.00
		0.00	0.00	1,500.00	0.00
		10,154.78	0.26	34,165.78	0.7
		17,179.97	0.29	32,231.57	0.29
		5,000.00	0.12	47,250.00	0.90
		3,000.00	0.10	21,690.00	0.88
		4,000.00	0.11	34,470.00	0.89
		1,414.21	0.02	18,073.65	0.02
		44,500.00	1.00	182,300.00	1.00
		0.00	0.00	1,500.00	0.00
		8,042.94	0.34	38,192.79	0.66
		11,446.94	0.37	47,281.31	0.37
		85,095.00	0.61	54,900.00	1.00
		0.00	0.00	3,000.00	0.39
		13,819.50	0.18	30,940.40	0.82
		26,005.26	0.21	17,190.53	0.21
		0.00	0.00	93,150.00	1.00
		0.00	0.00	51,480.00	1.00
		0.00	0.00	72,315.00	1.00
		0.00	0.00	29,465.14	0.00
		58,000.00	0.67	59,388.00	1.00
		0.00	0.00	2,600.00	0.33
		12,431.43	0.27	25,746.50	0.73
		18,053.33	0.24	17,846.68	0.24

가 (25,560.00 ) , (180,800.00 ) ,  
 74% , (89%), (82%)

4-9

6,013.89  
 (10,839.71 )  
 가 (58,125.00 ) , 가  
 (10,000.00 ) 0  
 21,570.22 , 가  
 (36,500.00 ) , (24,392.14 ) (23,868.82  
 ) , 가 가 (12,3000.00  
 ) , 가 (25,000.00 )

4-9.

( : )

		58,125.00	1.00	123,000.00	1.00
		0.00	0.00	0.00	0.00
		6,013.89	0.28	21,570.22	0.72
		13,728.98	0.40	27,528.31	0.40
		0.00	0.00	25,000.00	1.00
		0.00	0.00	0.00	1.00
		0.00	0.00	12,500.00	1.00
		0.00	1.00	17,67.67	
		58,125.00	0.00	81,600.00	1.00
		0.00	0.37	0.00	0.00
		10,839.71	0.41	23,868.82	0.63
		19,482.01		24,970.43	0.41
		23,250.00	1.00	37,800.00	1.00
		0.00	0.00	0.00	0.00
		4,355.00	0.25	12,540.00	0.75
		8,754.63	0.39	15,124.98	0.39
		10,000.00	0.42	59,000.00	1.00
		0.00	0.00	14,000.00	0.58
		5,000.00	0.21	36,500.00	0.79
		7,071.07	0.29	31,819.81	0.29
		29,400.00	1.00	123,000.00	1.00
		0.00	0.00	0.00	0.00
		2,342.86	0.23	24,392.14	0.77
		7,816.52	0.44	37,576.81	0.44

4 - 10

16,425.45 ,

가

(36,500.00 ) , (19,827.65 ) (17,003.85

) .

(83,000.00 ) , 가 가 (5,000.00 )

5,494.22 ,

(10,000.00 ) ,

(8552.86 ) .

가 가 (100,000.00 ) , 가

(18,000.00 ) 0 .

4-10. ( : )

		83,000.00	1.00	100,000.00	0.85	700.00	0.64
		0.00	0.15	0.00	0.00	0.00	0.00
		16,425.45	0.79	5,494.22	0.19	15.56	0.02
		22,089.8	0.32	16,840.33	0.31	104.35	0.11
		5,000.00	0.20	20,000.00	0.80	0.00	0.00
		0.00	0.20	0.00	0.80	0.00	0.00
		2,500.00	0.20	10,000.00	0.80	0.00	0.00
		3,535.53		14,142.14		0.00	
		81,600.00	1.00	50,000.00	0.85	0.00	0.00
		0.00	0.15	0.00	0.00	0.00	0.00
		19,827.65	0.84	4,041.18	0.16	0.00	0.00
		24,047.15	0.32	12,242.50	0.32	0.00	0.00
		36,600.00	1.00	18,000.00	0.75	0.00	0.00
		0.00	0.25	0.00	0.00	0.00	0.00
		8,660.00	0.76	3,880.00	0.24	0.00	0.00
		12,656.15	0.34	6,583.62	0.34	0.00	0.00
		59,000.00	1.00	0.00	0.00	0.00	0.00
		14,000.00	1.00	0.00	0.00	0.00	0.00
		36,500.00	1.00	0.00	0.00	0.00	0.00
		31,819.81	0.00	0.00	0.00	0.00	0.00
		83,000.00	1.00	100,000.00	0.81	700.00	0.64
		0.00	0.19	0.00	0.00	0.00	0.00
		17,003.85	0.77	8,552.86	0.17	50.00	0.06
		24,606.10	0.32	26,597.00	0.29	187.08	0.20

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4-11  
 , , . 38,421.51 ,  
 (81,834.00 ) ,  
 (65,720.00 ) (45,486.70 ) .  
 가가 (197,651.50 ) , 가  
 (2,550.00 ) 0 .

4-11. ( : )

		200,651.50	127,645.60	87,052.73
		850.00	429.00	(17,213.51)
		38,421.51	24,111.14	13,526.26
		36,531.09	26,187.33	19,724.92
		66,995.00	67,152.02	2,173.63
		64,445.00	62,271.37	(157.02)
		65,720.00	64,711.70	1,008.31
		1,803.12	3,451.14	1,648.02
		200,651.50	127,645.60	73,005.90
		3,000.00	1,600.00	(17,213.51)
		45,486.70	29,546.45	15,940.25
		49,066.18	33,008.16	21,096.94
		56,192.50	31,606.20	43,728.40
		2,800.00	1,290.00	595.00
		26,215.69	14,576.05	11,639.64
		13,240.69	8,072.42	11,722.47
		81,834.00	42,685.90	39,148.10
		81,834.00	429.00	(429.00)
		81,834.00	21,557.45	19,359.55
		0.00	29,880.14	27,985.24
		112,471.18	86,800.00	87,052.73
		850.00	1,116.00	(14,800.00)
		35,047.51	21,610.94	13,436.57
		34,475.75	25,661.00	25,497.25



24,111.14 ,  
 (64,711.70 ) (29,546.45 )  
 .  
 가가  
 (126,045.60 ) ,가 (4,880.65 ) .

13,526.26 ,  
 (19,359.55 ) (15,940.25 ) .  
 가가 (101,852.73 ) ,가  
 (2,330.65 ) .

4-12 , , ,  
 , 가 , , .

13,447.16 ,  
 (15,916.52 ) (13,998.20 ) .  
 가가 (50,951.60 ) ,가  
 (11,461.35 ) 0 .

9,244.36 ,  
 (48,990.00 ) , (30,300.00 )  
 (11,652.401 ) . 가가  
 (75,260.00 ) ,가 (16,470.00 )  
 0 .

384.61 , 119.69  
 164.64 .

가 1153.94 , 가  
 (1,723.50 ) , (1,215.99 )  
 (1,179.22 ) . 가 가가  
 (6,556.56 ) ,가 (348.00 ) .

4-12.

( : )

												가	
		51,826.60	1.00	75,260.00	0.86	4,160.92	0.11	1,392.00	0.05	2,000.00	0.06	6,556.56	1.00
		720.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		13,447.16	0.65	9,244.36	0.23	384.61	0.02	119.69	0.01	164.64	0.00	1,153.94	0.11
		12,343.38	0.27	16,320.15	0.26	896.98	0.03	271.58	0.01	453.05	0.01	1,210.00	0.16
		19,728.87	0.32	57,800.00	0.86	0.00	0.00	0.00	0.00	0.00	0.00	2,362.50	0.04
		8,267.52	0.12	40,180.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00	1,084.50	0.02
		13,998.20	0.22	48,990.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	1,723.50	0.03
		8,104.40	0.14	12,459.22	0.15	0.00	0.00	0.00	0.00	0.00	0.00	903.68	0.02
		51,826.60	0.99	75,260.00	0.63	3,827.00	0.09	890.00	0.02	1,780.00	0.04	6,556.56	0.38
		875.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		15,916.52	0.62	11,652.41	0.26	387.36	0.01	103.82	0.00	160.59	0.00	1,215.99	0.10
		15,002.22	0.24	19,639.36	0.23	987.02	0.02	238.59	0.01	476.4	0.01	1,601.50	0.12
		20,650.20	1.00	16,470.00	0.57	1,000.00	0.11	558.00	0.04	232.50	0.01	3,983.19	0.25
		1,000.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		11,027.58	0.76	2,032.07	0.11	160.00	0.02	70.57	0.00	16.61	0.00	1,179.22	0.09
		6,304.73	0.24	4,458.60	0.20	317.58	0.03	154.56	0.01	62.14	0.00	1,150.63	0.08
		9,730.10	0.23	30,300.00	0.71	1,878.80	0.04	0.00	0.00	0.00	0.00	777.00	1.00
		9,730.10	0.23	30,300.00	0.71	1,878.80	0.04	0.00	0.00	0.00	0.00	429.00	0.02
		9,730.10	0.23	30,300.00	0.71	1,878.80	0.04	0.00	0.00	0.00	0.00	603.00	0.51
		0.00		0.00		0.00		0.00		0.00		246.07	0.69
		49,000.00	0.99	33,600.00	0.71	4,160.92	0.11	1,392.00	0.05	2,000.00	0.06	2,698.16	0.39
		720.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		13,055.00	0.66	6,350.68	0.20	554.09	0.02	213.73	0.01	352.86	0.01	1,050.65	0.09
		14,610.81	0.27	10,327.60	0.26	1,152.91	0.03	396.16	0.01	625.10	0.02	862.52	0.11

4 - 13

27%

(48%)

가가

(4%)

(300%) , 가

(42%)

(0%)

199% ,  
 (182%) (144%) .  
 가가 (633%) , 가 (33%)  
 (0%) .

4-13.

				( )	
		0.96	6.33	13.33	12.83
		(2.08)	0.00	0.00	0.00
		0.27	1.19	1.57	1.18
		0.52	1.90	2.24	2.13
		0.03	0.00	3.09	1.01
		(0.00)	0.00	1.36	0.00
		0.02		2.23	0.51
		0.03		1.22	0.72
		0.92	6.33	13.33	12.83
		(2.08)	0.00	0.26	0.23
		0.23	1.44	2.44	1.91
		0.72	2.07	3.56	3.14
		0.80	4.65	1.24	1.00
		0.03	0.00	0.51	0.00
		0.42	1.82	0.84	0.39
		0.23	2.49	0.21	0.32
		0.48	0.00	0.88	1.15
		0.48	0.00	0.00	0.26
		0.48	0.00	0.44	0.70
				0.62	0.63
		0.96	0.33	2.80	3.97
		(0.98)	0.00	0.27	0.03
		0.20	0.11	1.25	0.99
		0.49	0.19	0.84	1.14

118% ,  
 (191%) .  
 (1,260%) , 가 (89%) .  
 가 가  
 1.57 ,  
 (2.44 ) (2.23 ) .  
 가가 (13.08 ) , 가  
 (0.73 ) .

) 가 가  
 4-14 가 ,  
 , 가  
 35,418.17 , 가 가  
 (45,180.53 ) (35,888.60 )  
 . 가 가  
 (115,137.38 ) , 가 (50,420.00 )  
 (0 ) .

4-14. 가 ( : )

		50,000.00	2,500.00
		800.00	0.00
		19,785.29	182.35
		17,322.69	609.54
		40,000.00	0.00
		2,500.00	0.00
		18,500.00	0.00
		15,771.81	0.00
		50,000.00	100.00
		1,050.00	0.00
		23,435.71	14.29
		21,807.7	37.80
		35,000.00	2,500.00
		800.00	0.00
		15,960.00	600.00
		13,946.61	1,083.97

가 768.76 ,  
 가 가  
 (1,780.91 ) . 가 가  
 (17,934.00 ) , 가 (780.00 )  
 (0 ) .

4-15 가 , 가  
 , , 가  
 25,465.65 , 가  
 가 (36,852.20 ) (26,801.51  
 ) . 가 가가  
 (90,000.00 ) , 가 (29,986.20 )  
 (0 ) .

4-15. 가 ( : )

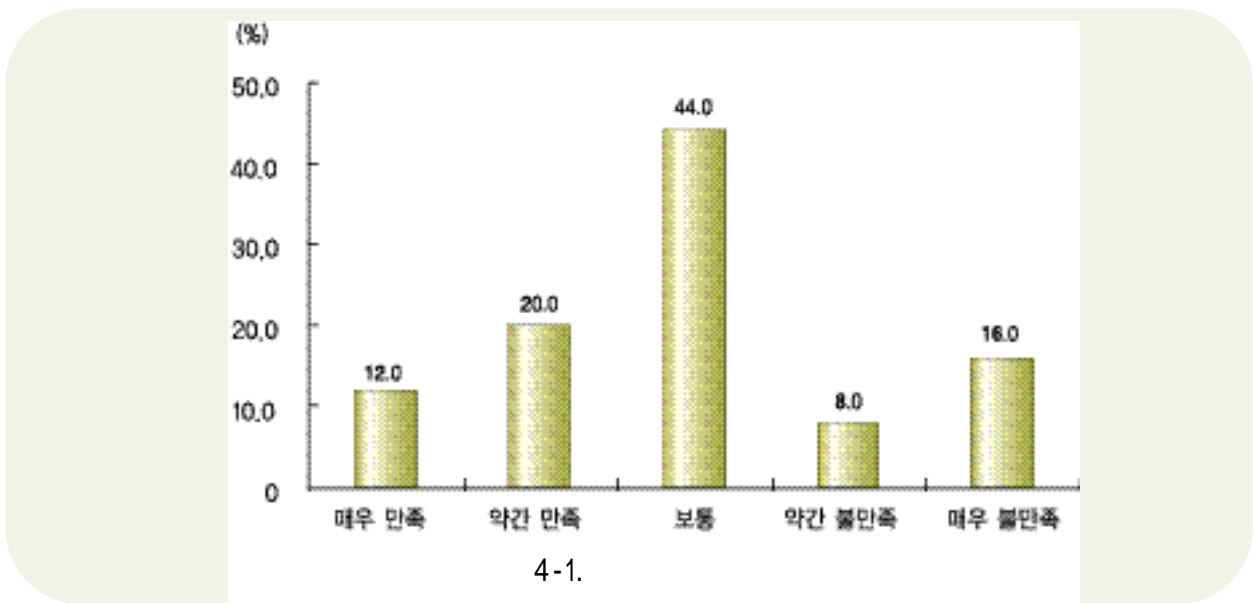
		90,000.00	700.00	42,000.00
		0.00	0.00	0.00
		25,465.65	43.57	13,373.03
		21,485.86	153.83	12,176.79
		0.00	0.00	0.00
		0.00	0.00	0.00
		0.00	0.00	0.00
		0.00	0.00	0.00
		90,000.00	546.00	36,000.00
		0.00	0.00	0.00
		36,852.20	49.64	18,469.75
		24,737.94	164.63	11,913.27
		29,986.20	366.00	32,940.00
		0.00	0.00	0.00
		15,278.63	26.14	8,835.43
		8,656.34	97.82	10,199.71
		0.00	0.00	0.00
		0.00	0.00	0.00
		0.00	0.00	0.00
		0.00	0.00	0.00
		72,000.00	700.00	42,000.00
		800.00	0.00	0.00
		26,801.51	58.33	13,947.08
		24,298.04	202.07	13,342.17

	가	43.57	,	
가		가		
(58.33 )	(49.64 )	.	가	
가 가		(700.00 )	, 가	
(366.00 )		(0 )	.	
	가	13,373.03	,	가 가
가			(18,469.75 )	
(13947.08 )	.	가	가 가	
(42,000.00 )	,	가 가	(32,940.00 )	
		(0 )	.	

1)

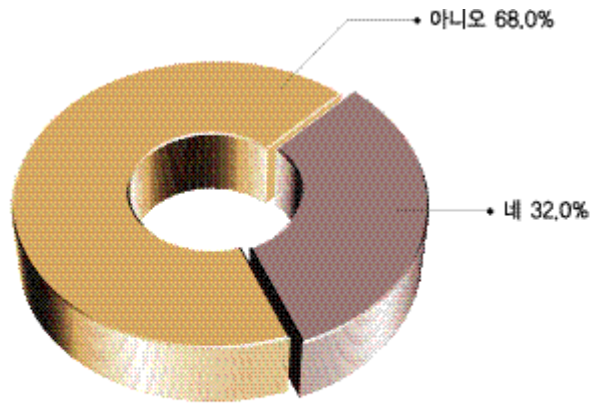
가)

가 , “ ” 가  
 44.0% 가 . “ ” “  
 ” 가 32.0% , “ ” “  
 ” 24.0% 가 .  
 가 가 ,

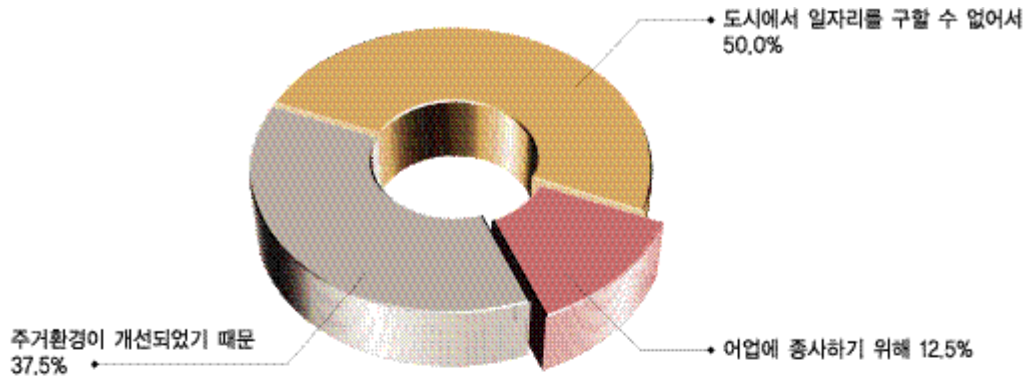


가 , 20 ~40 가 가  
 68.0%가 , 가  
 32.0%

가 ,  
 “ 가 50.0% ,  
 “ ” “ 가 37.5% ,  
 12.5% 가



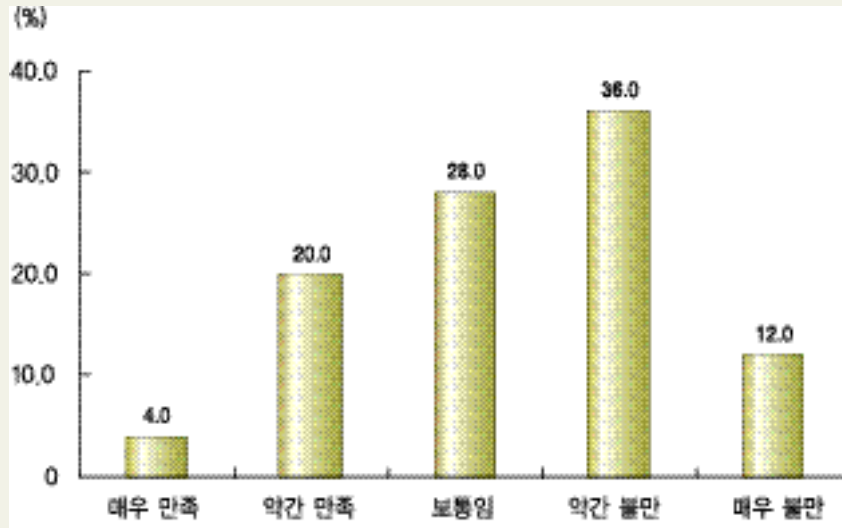
4-2. 가



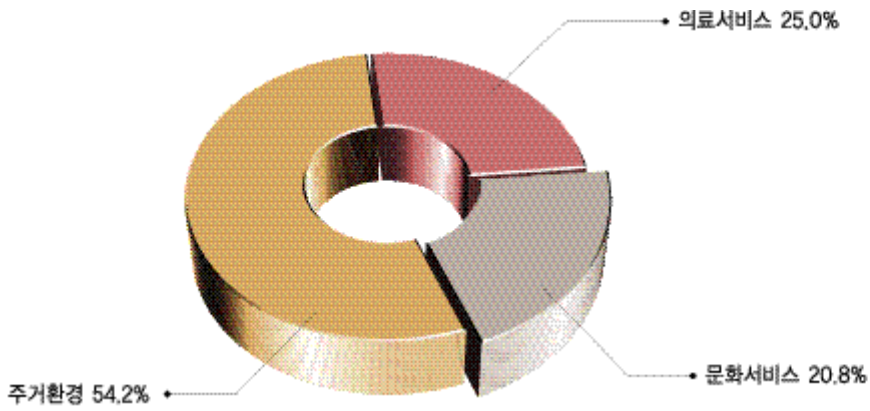
4-3. 가

가 가 ,  
 “ ”  
 , “ ” 가 48.0% 가  
 , “ ” 가 28.0% ,  
 24.0% .  
 가 , .





4-4.

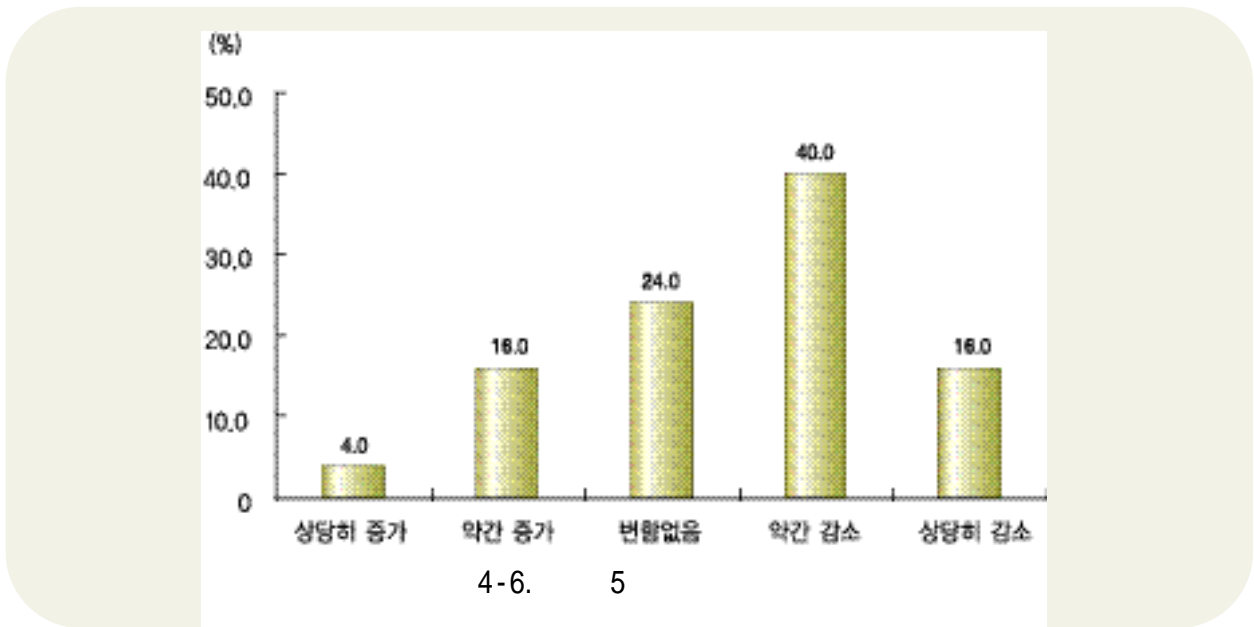


4-5.

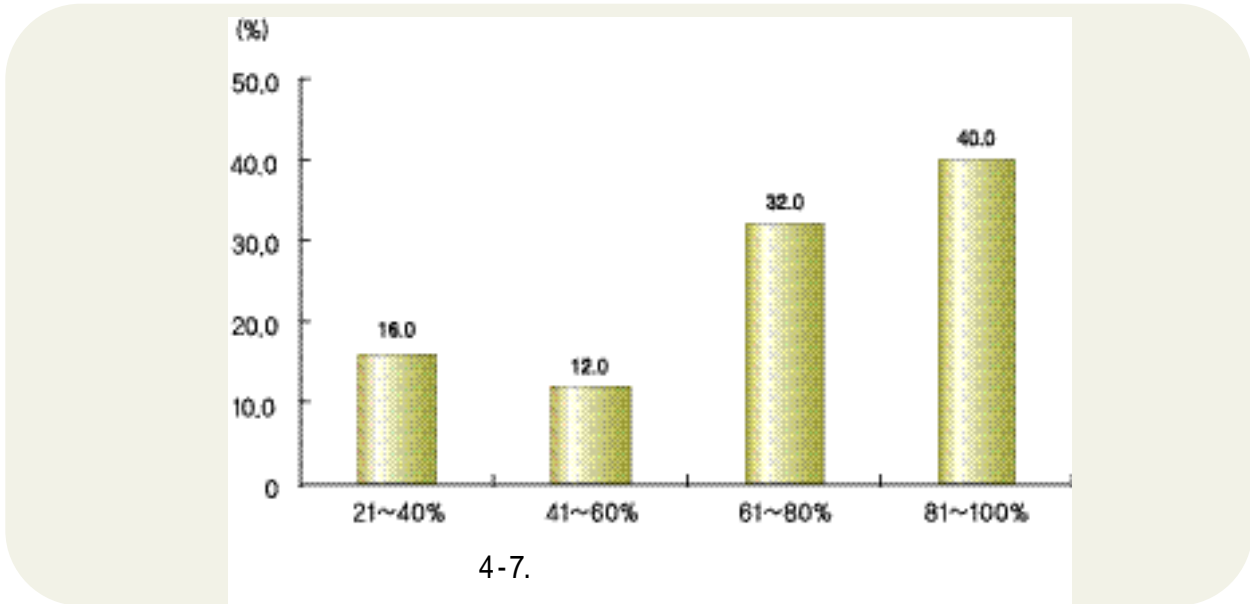
가 . 가  
 “ ” 54.2%가  
 “ ” 25.0% ,  
 “ ” 20.8% .  
 가 가 ,  
 .

)

5 가 , , “ ” 16.0% ,  
 40.0%가 “ ” , “ ” 24.0% , 가  
 56.0% . 20.0%

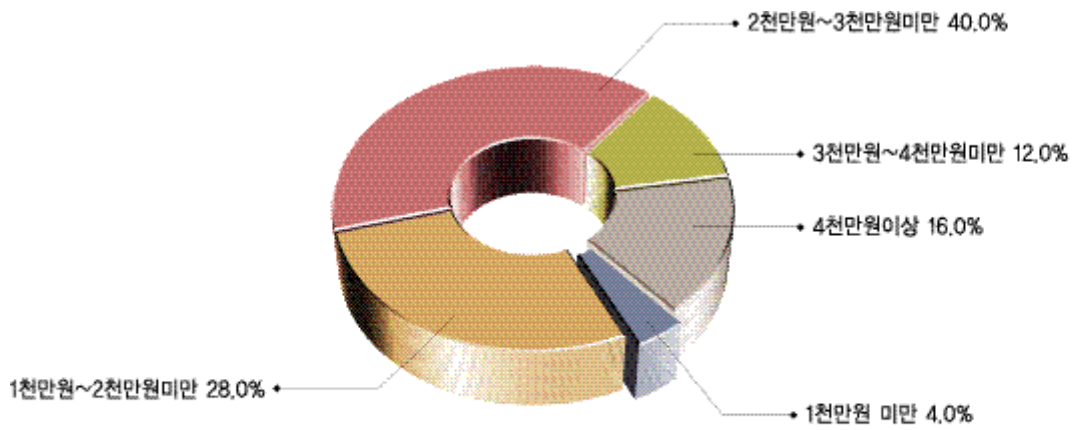


40.0%가 “ 81~100%” ,  
 “ 61~80%” 32.0% ,  
 72.0% .  
 EEZ  
 가 ,  
 가



4-7.

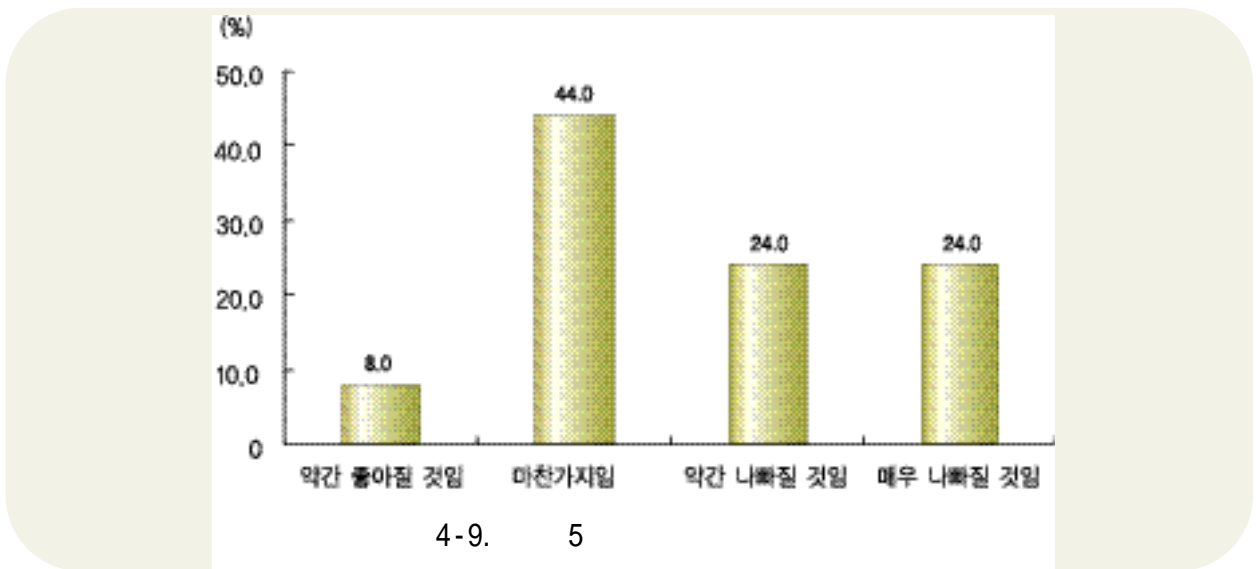
가 , “ 2 ~ 3 ” 40.0% 가 , “ 1 ~ 2 ” 28.0% .



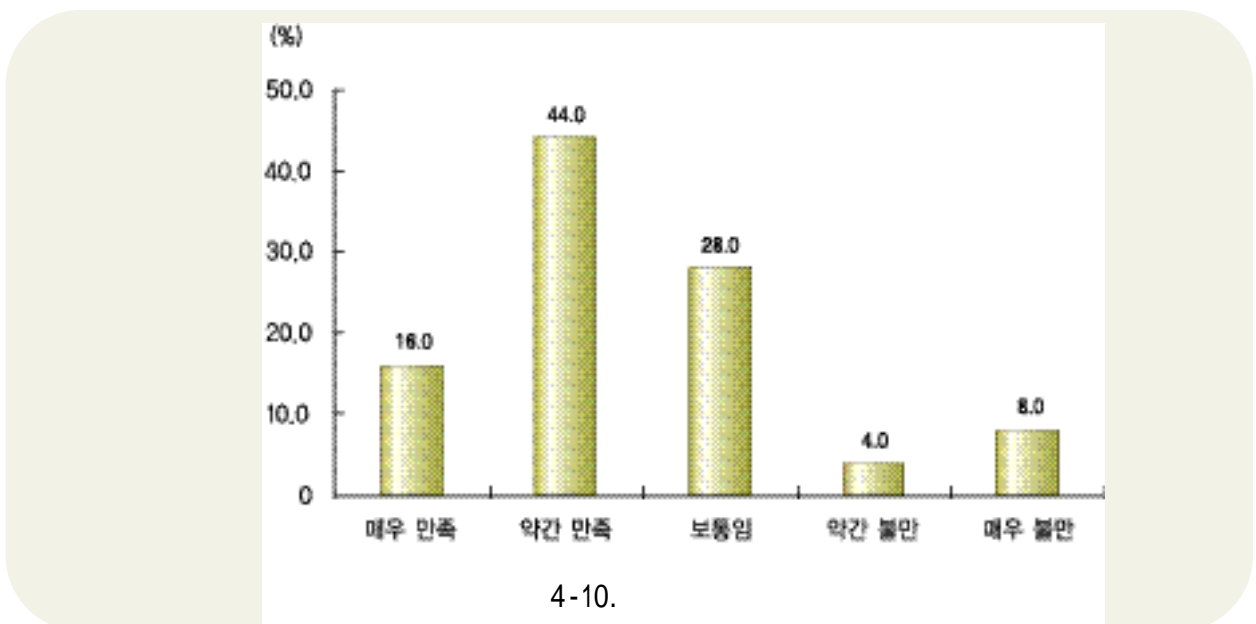
4-8.

” “ ” 48.0% ,  
 44.0% , 가 ” 8.0%

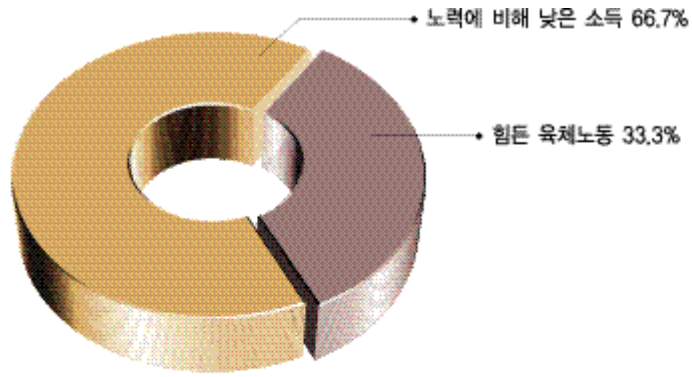
5



60.0% , “ ” 28.0% .  
 12.0% ,

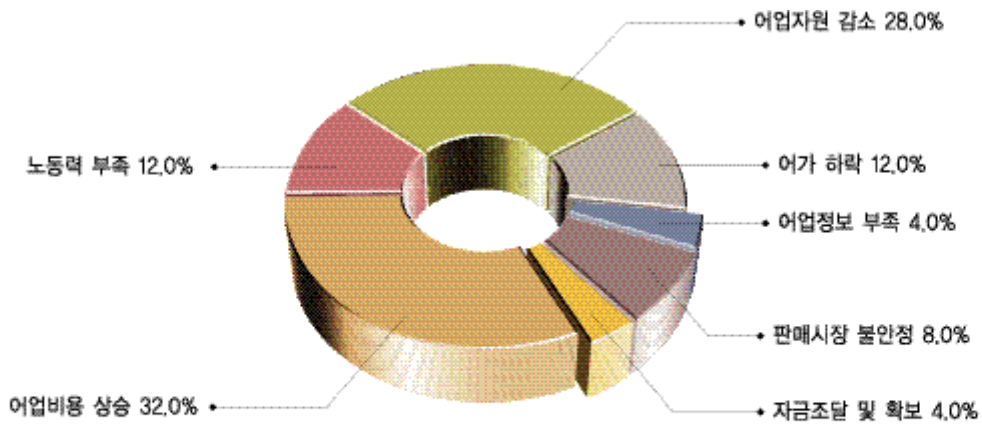


66.7% “ ” , “ ”  
 33.3% , 3D



4-11.

3 “ ” “ ” 32.0%가  
 “ ” 28.0% “  
 ” “ 가 ” 12.0% ,  
 ” 8.0% .

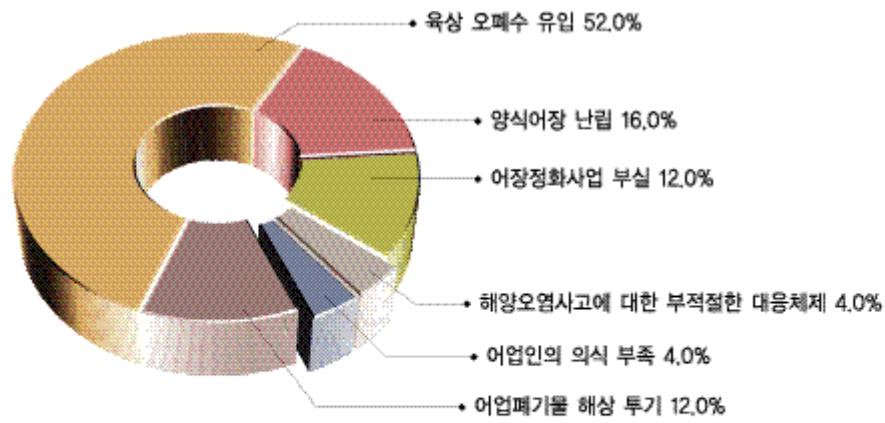


4-12. ( 3 )

가 ,

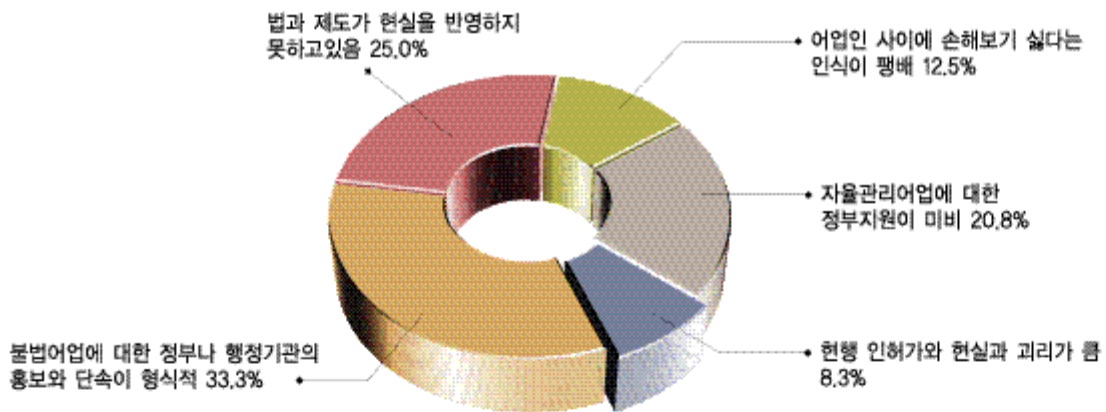
)

가 (52.0%)  
 “ ” 16.0%  
 “ ” “ ”  
 12.0%  
 가



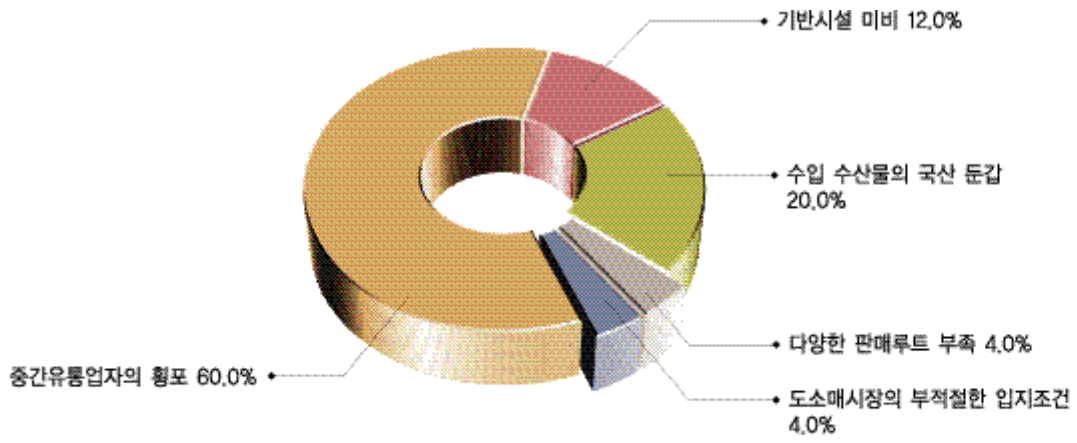
4-13.

가 가 , 가  
 “ ” (33.3%)  
 “ ? ” 25.0%  
 “ ”  
 20.8% ,



4-14.

가 “ ”  
 60.0% 가 , “ ”  
 20.0% .



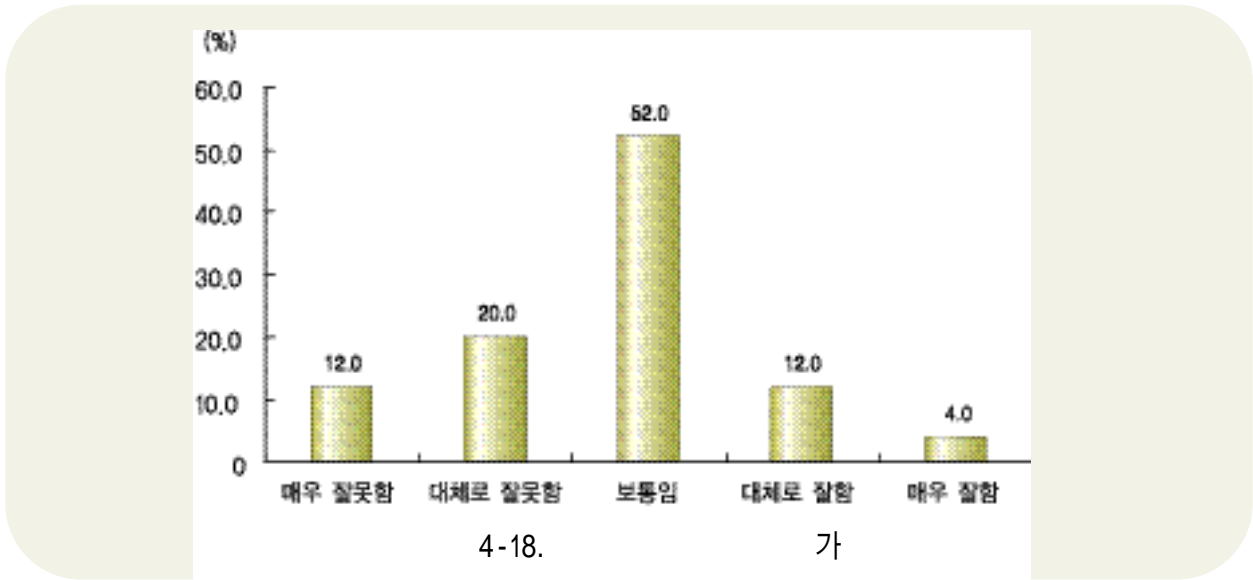
4-15.

가 가 ,  
 (WTO, WTO)  
 WTO ( , )  
 가 , “  
 ” 56.0% ,  
 56.0% . “ ” “ ”  
 32.0%,  
 12.0% .  
 WTO

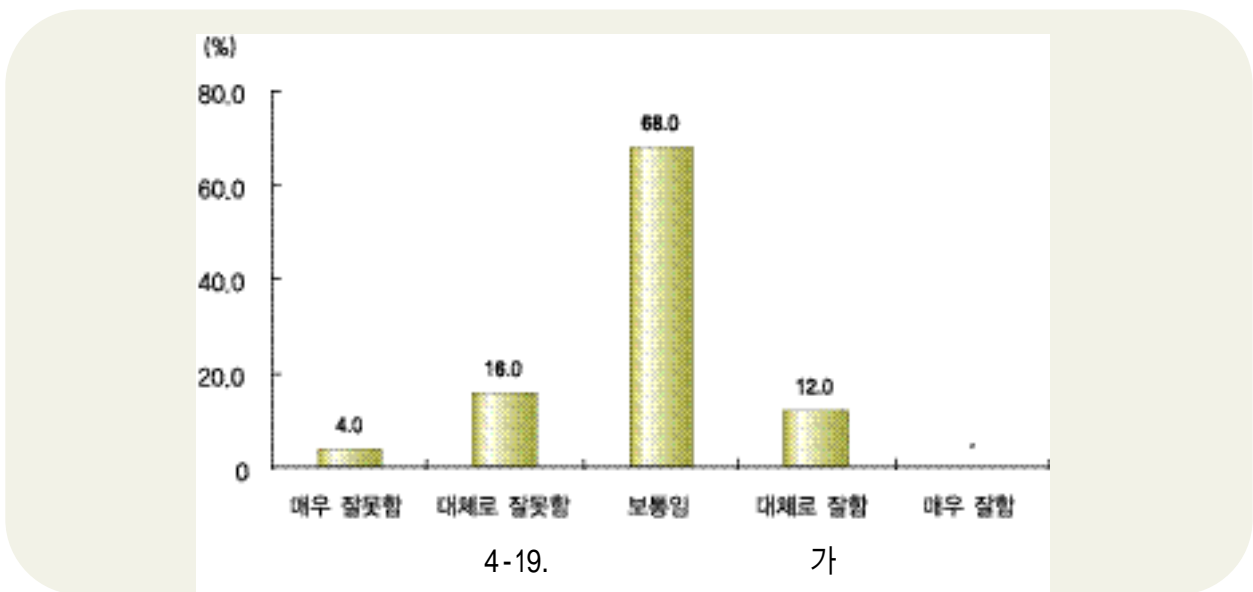




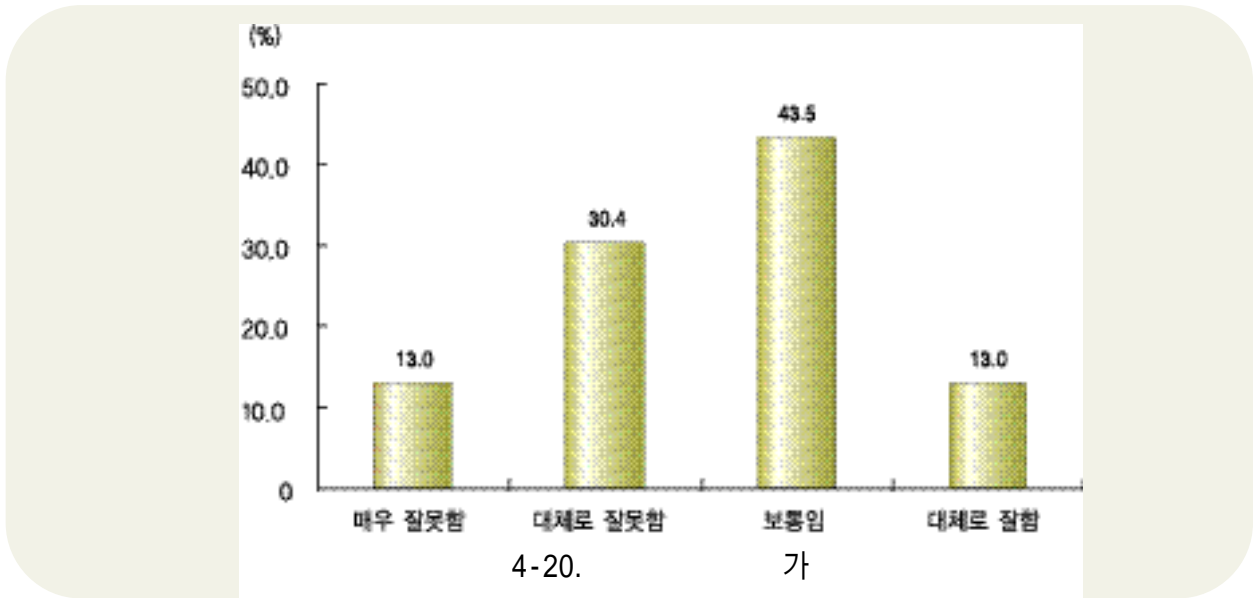
가 “ ” 가가  
 52.0% 가  
 16.0% 가  
 32.0% ,  
 가  
 가 ,



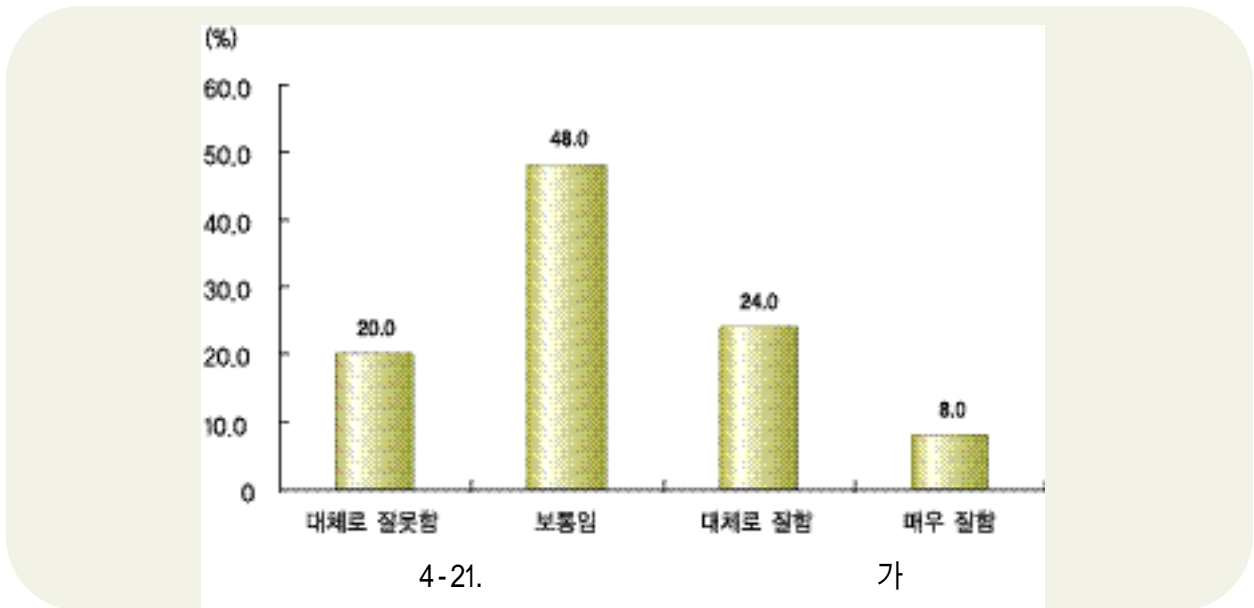
“ ” 가 68.0% 가  
 “ ” 가 20.0%,  
 “ ” 가 12.0%



가  
 1980  
 “ 43.5% 가 “  
 ” 30.4%, “ ” 13.0% , “ ” 13.0% .  
 가  
 가

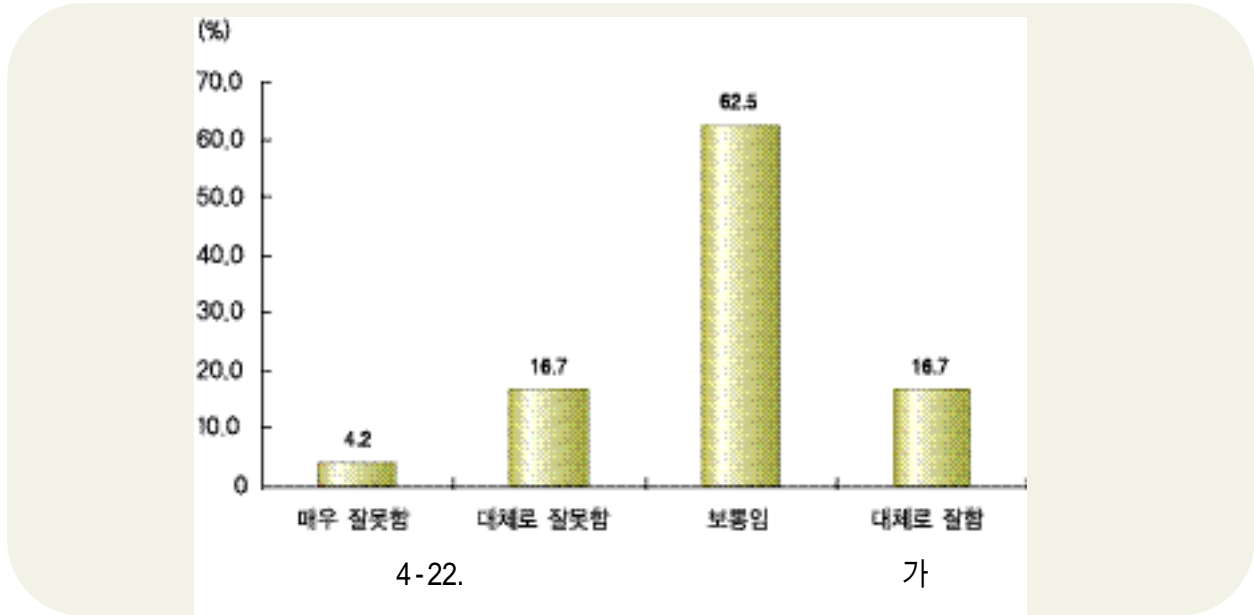


“ ” 가 가 48.0% . “  
 ” “ ” 가 가 32.0% . “ ”  
 가 20.0% .

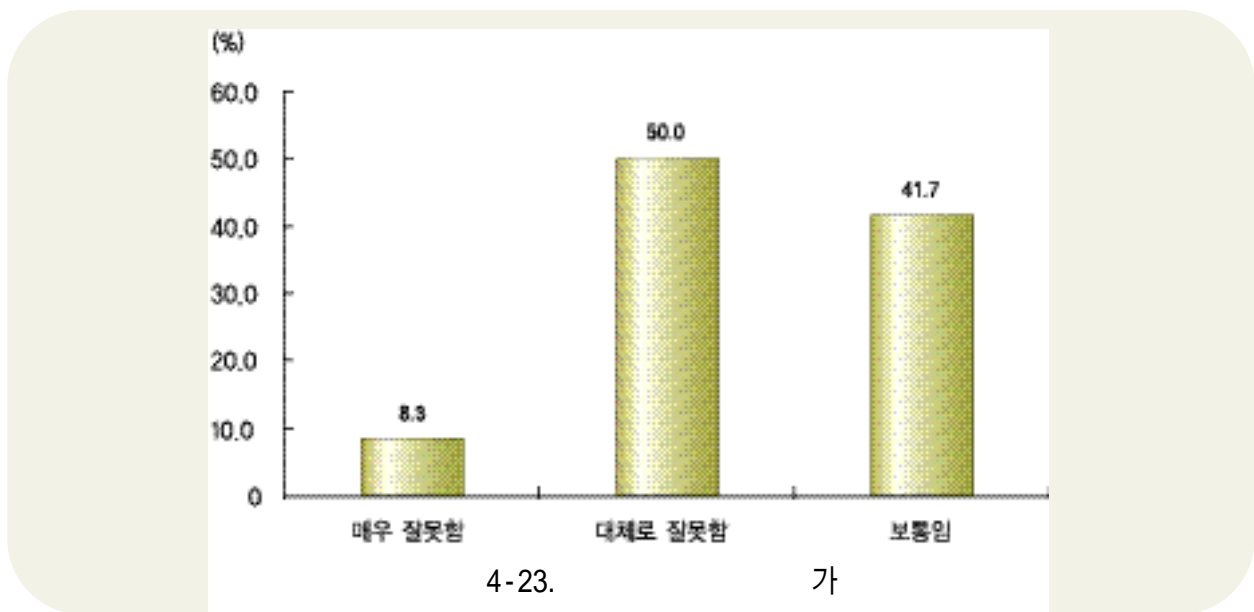


“ ” (62.5%) 가  
 20.9% , 가 16.7% .

가 .



가 50.0% “ ”  
 , “ ” 8.3% . 가 가 , “ ” 가 58.3%  
 41.7% .



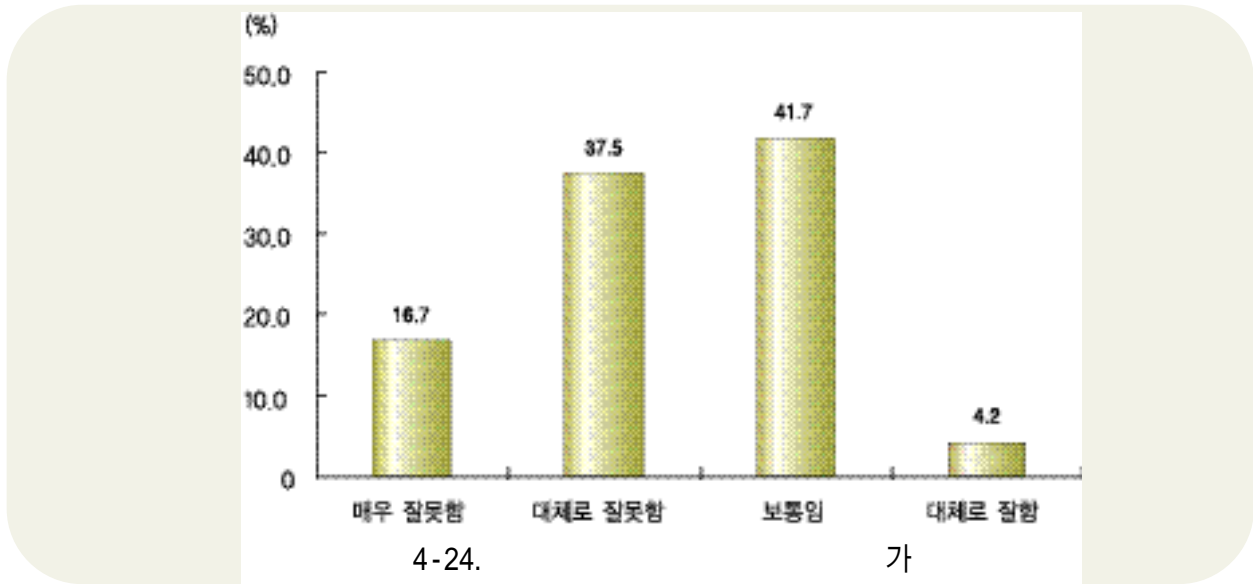
WTO

FTA

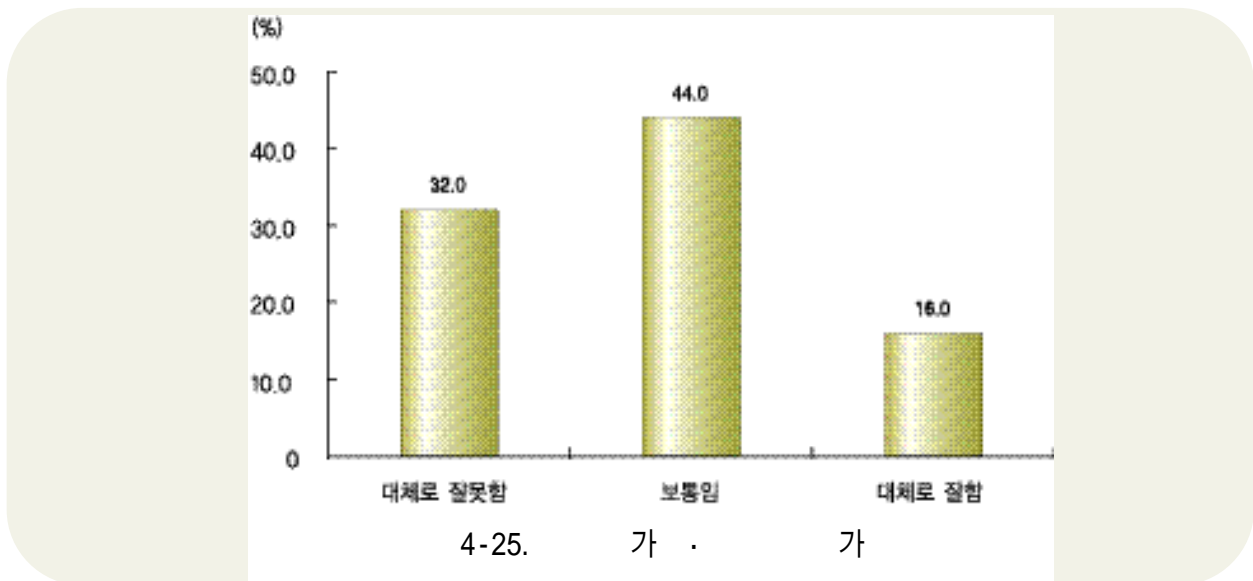
가

가

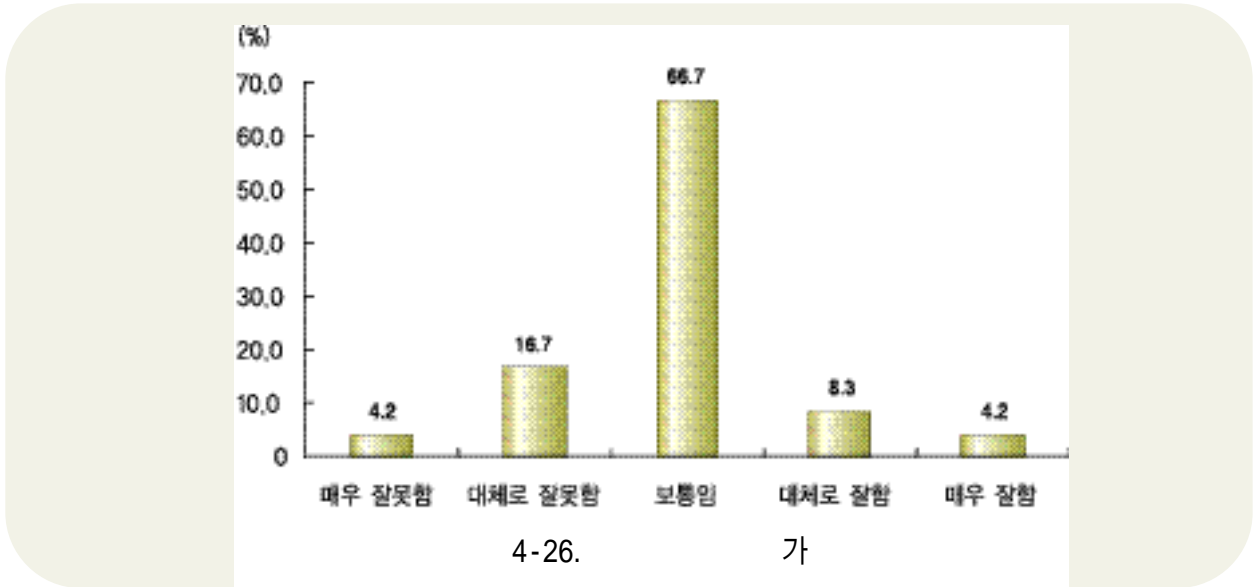
“ ” 가 37.5%, “ ” 16.7% ,  
 54.2% “ ” 가 “ ” 가  
 41.7% , “ ” 가 4.2%  
 가



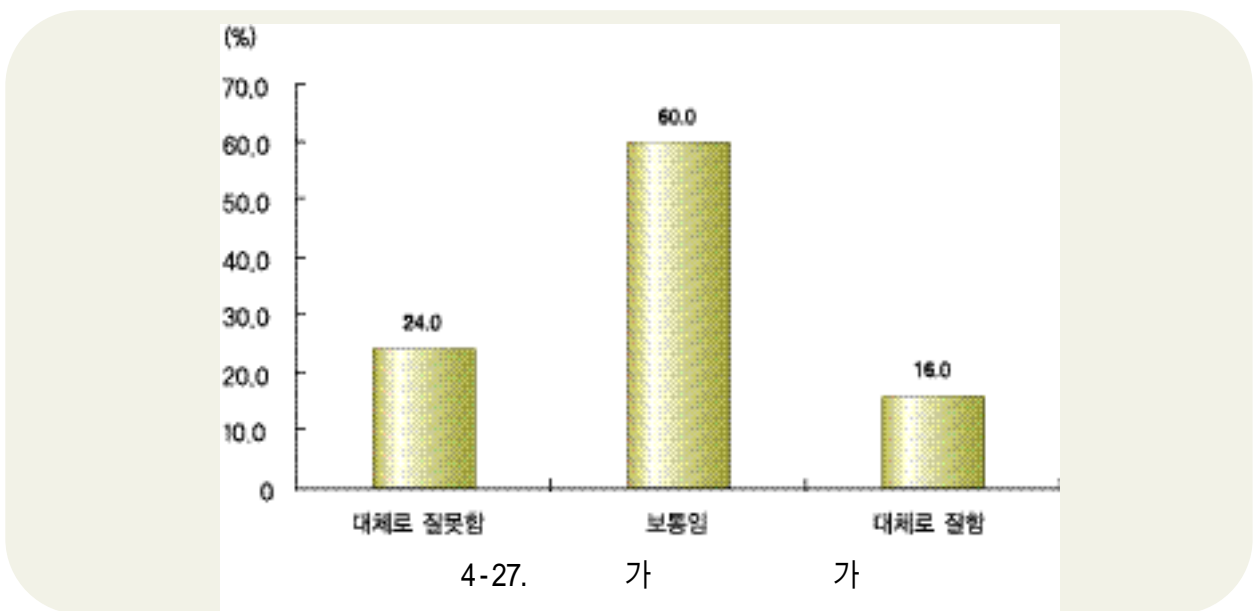
가 . 44.0%가 “ ”  
 “ ” 가 32.0% “ ” 가  
 16.0% . 가  
 가 “ ” “ ” .



“ ” 가 66.7% 가  
 “ ” 20.9% ,“  
 ” 가 12.5% .  
 가 , 가  
 “ ” 가



가 가 ,“ (60.0%) 가  
 “ 가 24.0% ,“ ” 16.0% .  
 가  
 가

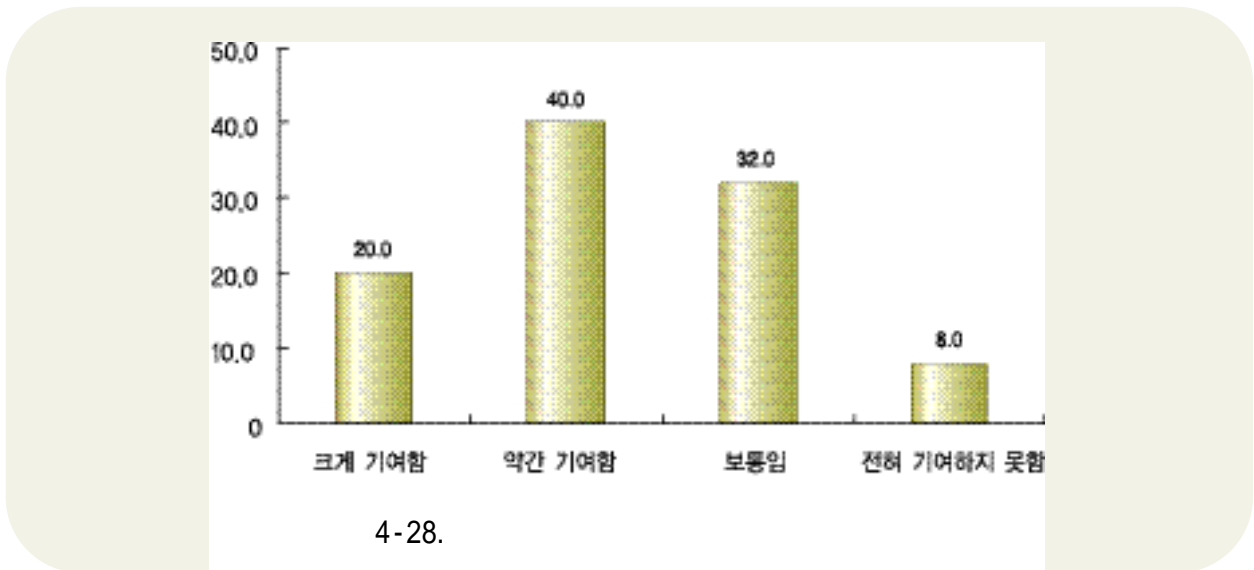


2)

가 , , 가

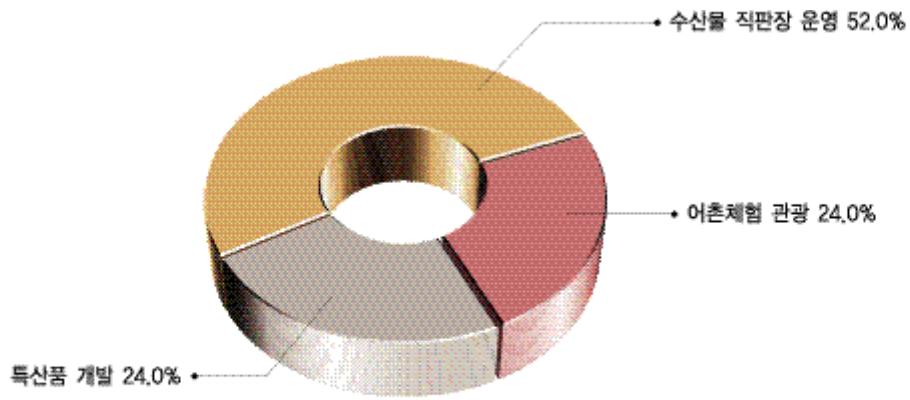
가)

“ 가 20.0% “ ” 가  
 40.0% , 60.0% 가  
 “ ” 가 32.0% , “ ” 가  
 8.0% , 60%



가

52.0% “ ” “  
 ” “ ” 24.0%  
 , 가

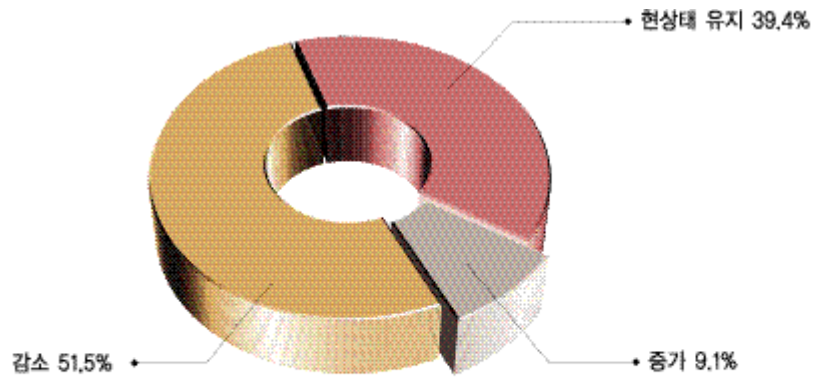


4-29. 가

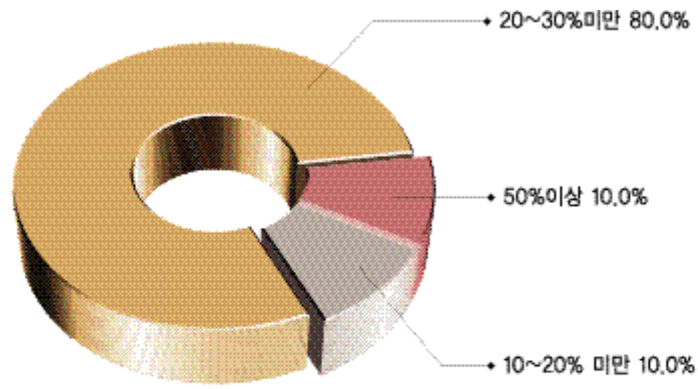
) 가

가

“ ” 51.5% 가  
 “ ” 39.4% , “ 가 ”  
 9.1% .  
 가  
 가 ,  
 “ 20~30% ”  
 80.0% 가 “ 50% ”  
 가  
 “ 10~20% ”  
 가 10% .

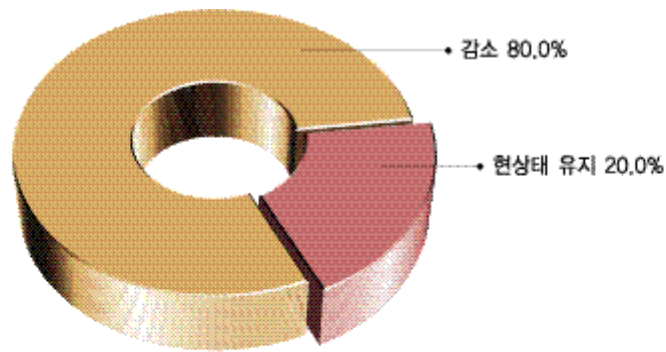


4-30.

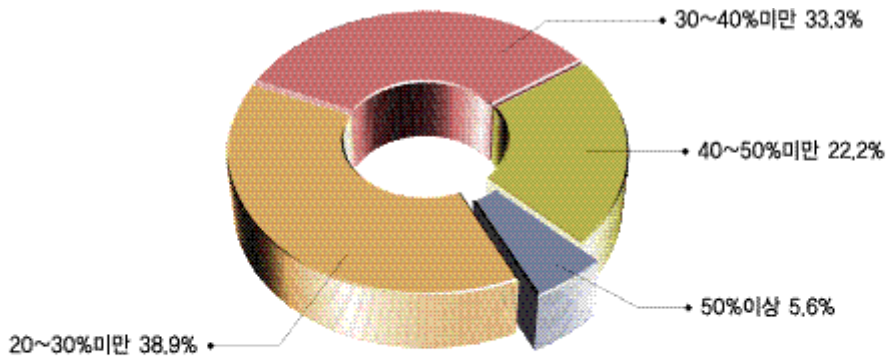


4-31.

가  
가 ,  
“ (80.0%)  
” 20.0%



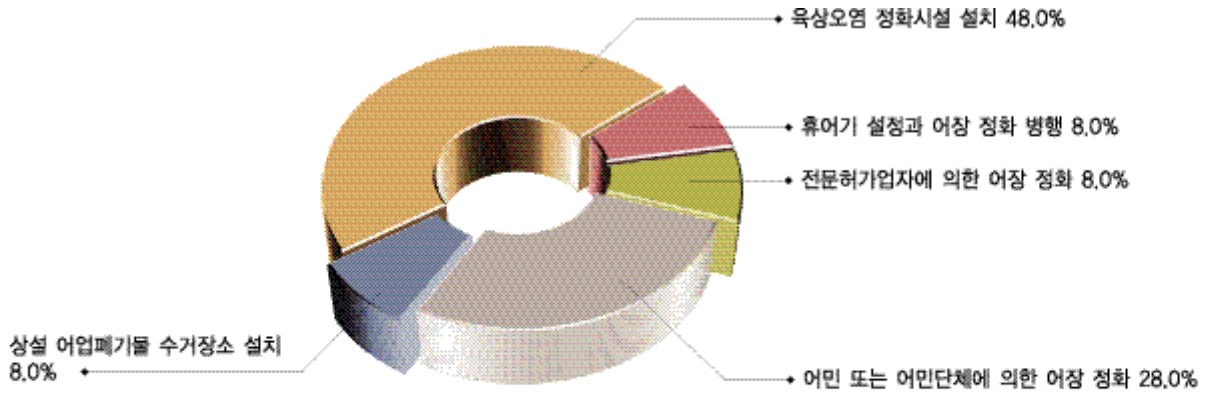
4-32. 가



4-33. 가

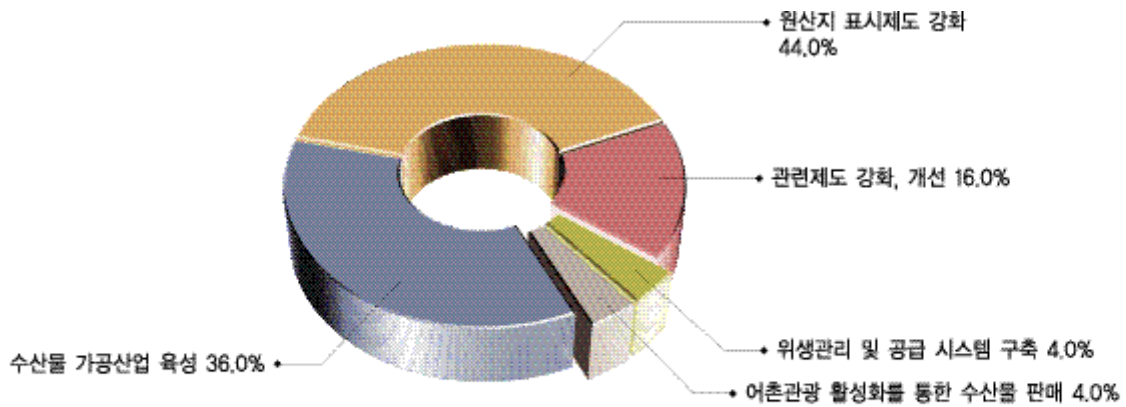






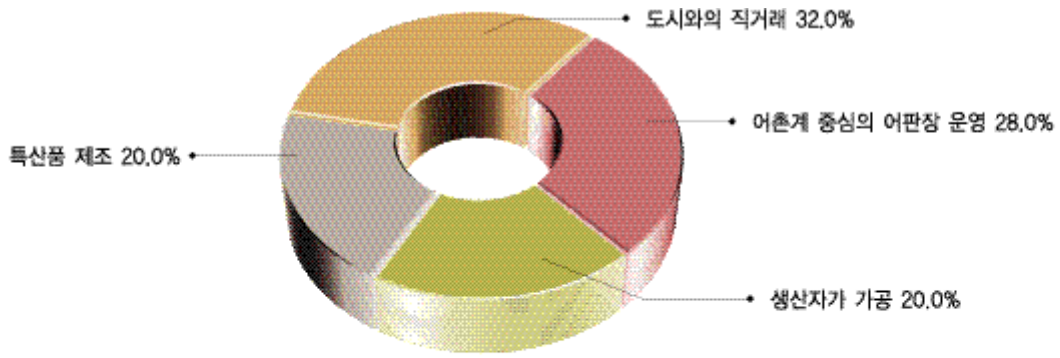
4-35.

가가 . 가  
 “ , ” 40.0%  
 가 “ 가 ” 36.0%  
 “ , ” 16.0% , “  
 ” “ ”  
 4.0%



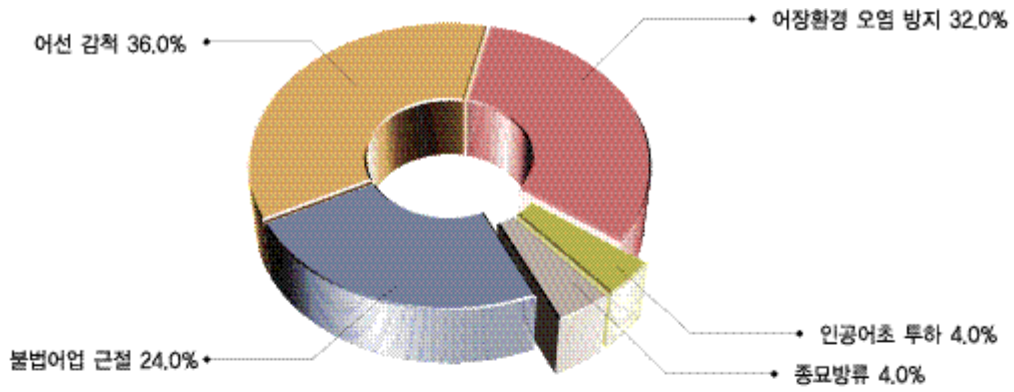
4-36.

가가 . ( )  
 가가  
 가 32.0%가 “ ” , “  
 ” 28.0% .  
 가  
 “ ” “ 가가 ” 20.0% .



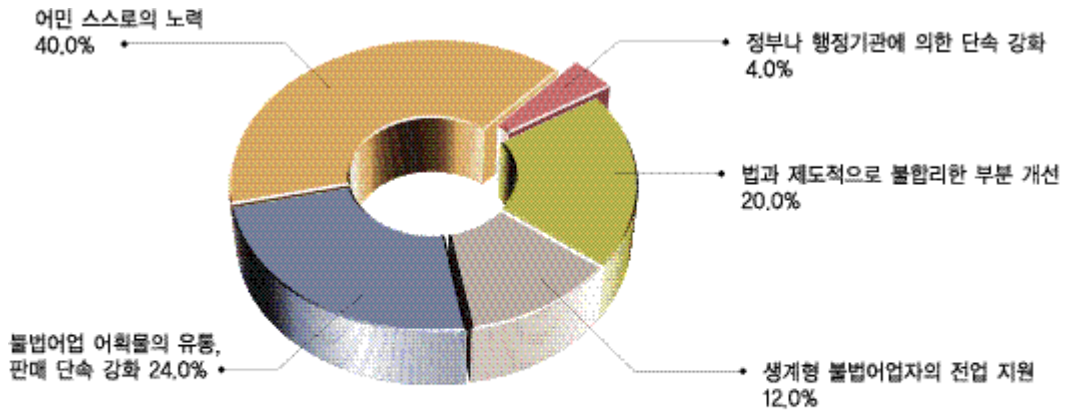
4-37. 가가 ( )

“ (36.0%) 가  
 “ ” “ ”  
 32.0%, 24.0%



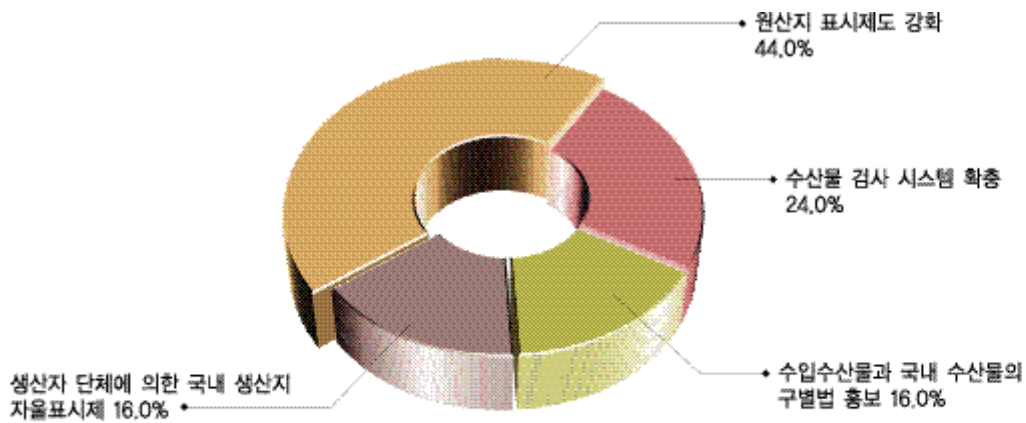
4-38.

가  
 , “ (40.0%) 가 , “  
 ” 20.0% 24.0% “



4-39.

가  
 , 44.0% “ ” 가 ,  
 “ ” 24.0% “ ”  
 ” “ 16.0%



4-40.

)

가

가

가 ,

가

가

가

”

36.0%

“ 가

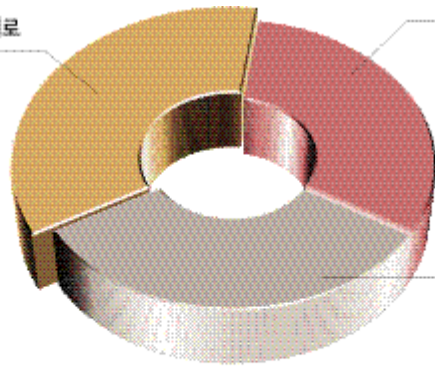
”

“ ”

32.0%

가

사업계획서 평가결과를 토대로  
집중 투자 36.0%



→ 고른 분산투자 32.0%

→ 성장가능성이 있는 곳에 집중투자 32.0%

4-41.

가 가 가

가 ,

가

가

가 ,

”

21.3% 가

”

“ 가 /

” 14.9%

,”

” 12.8%

11

“ ”

2.1%

가

38.5%

30.8%

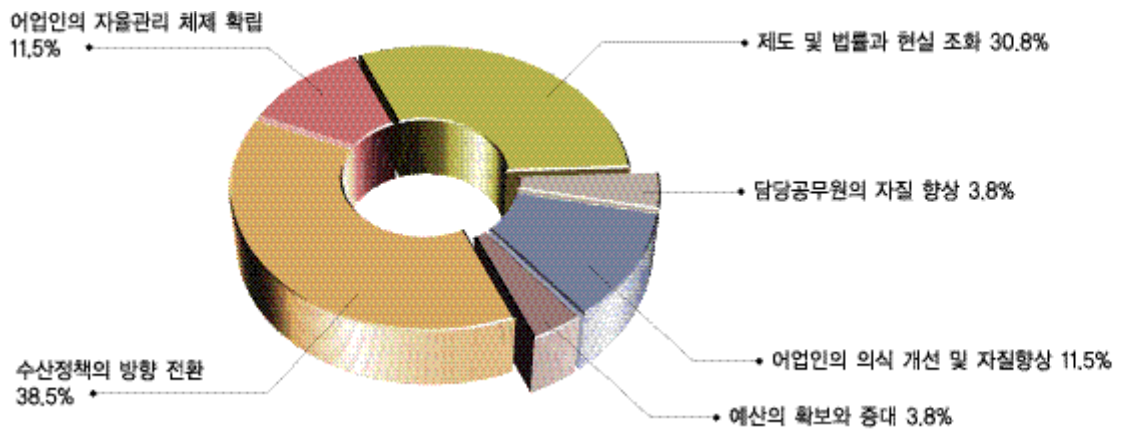
11.5%

가

4-16.

		(%)
	47	100.0
	10	21.3
	7	14.9
	2	4.3
	3	6.4
	6	12.8
	5	10.6
	2	4.3
가 .	4	8.5
	7	14.9
	1	2.1
가	-	-

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4-42.



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Korean Coastal and Offshore Fishery Census

2004 12 5

2004 12 20

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