

502.4

( )

,

, 15, 65016, . ,

MapInfo

( )

( , , , ), ,



2012 .,

[11].

[12].

S [6, 12].

$$P_t = \frac{S}{S} \times 100\% . \tag{1}$$

[2, 12].

$$P_t = \frac{k_A \sum S_{Ai} + k_B \sum S_{Bi} + k_C \sum S_{Ci} + \dots + k_Z \sum S_{Zi}}{S_{ti}} , \tag{2}$$

$P_{ti}$  – ;  $S_{Zi}$  – ;  $S_{ti}$  – ;  $A, B, C, \dots Z$  – ;  $S_{Ai}, S_{Bi}, S_{Ci}, \dots$  ;  $k_A, k_B, k_C, \dots k_Z$  –

$$K_A = \frac{N}{N_A} . \tag{3}$$

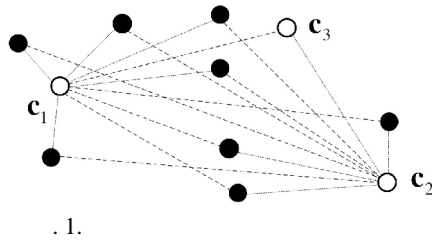
[8, 12],

I [6],

$$I = \frac{\sqrt{n^2 + S^2}}{S} , \tag{4}$$

$n$  – ;  $S$  – ;  $S$  –

$$V_i( P_{ti}, I_i ) , \tag{5}$$



$$\min_{c \in C^{(k)}} \|x^{jk+1} - c\| = \max_{x \in \Xi \setminus C^{(k)}} \min_{c \in C^{(k)}} \|x - c\|.$$

4. “ ”. “ ” -  
 $Q_{(k+1)} / Q_{(k)} \geq \dots \in (0,1),$  ,

Systems Corp.),

[15].

15,74, 14,80, 13,92, 12,60 10,90 %,

2,32, 2,07%,

*Pt*

34,16, 20,66, 14,67, 14,59,

- 1,73, 1,57, 0,92, 0,82, 0,43,

- 0,16, 0,15, 0,14, 0,14, 0,12,

0,02, 0,02,

- 0,03, 0,03, 0,02,

“ ”,

( . 1),

[9].

1.

$i = 1.$

2.

$2 = j_2,$   
 $1,$

$$\|x_{j_2} - c_1\| = \max_{x \in \Xi} \|x - c_1\|.$$

3.

$$C^{(k)} = \{c_1, \dots, c_k\}$$

(k+1)-

1, ..., k,

MapInfo ( , Mapping information

		<i>Pt</i>	<i>I</i>
-	15,74	14,67	0,16
.	14,80	69,92	0,15
.	13,92	34,16	0,14
.	12,60	11,58	0,14
.	10,90	8,53	0,12
.	7,80	2,68	0,10
.	8,87	14,59	0,10
.	9,05	10,51	0,09
.	7,60	20,66	0,08
.	8,31	2,04	0,08
.	6,72	5,45	0,07
.	7,40	12,88	0,07
.	4,50	5,71	0,06
.	4,52	3,28	0,05
.	4,95	3,38	0,05
.	4,50	1,93	0,05
.	4,14	3,43	0,04
.	4,01	0,82	0,04
.	4,10	1,84	0,04
.	3,00	5,06	0,03
.	3,29	1,73	0,03
.	3,46	1,57	0,03
.	2,35	0,43	0,02
.	2,32	0,92	0,02
.	2,07	3,03	0,02

[1],

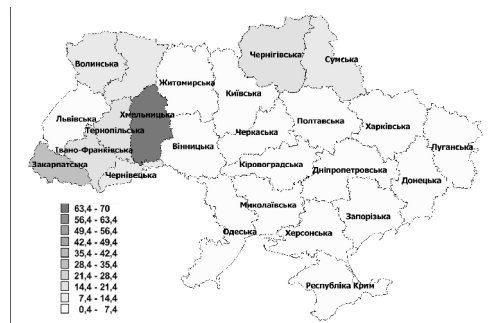
[2].

[1].

[2].

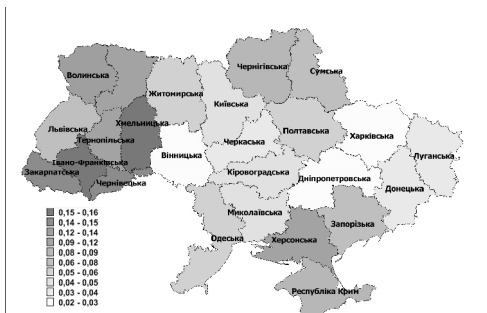
[2].

2012 . ( . 2-4).



. 2.

. 3. *Pt*



. 4.

. 5.

- (5). , -  
,  
, .5,  
, , ,  
, .  
, ( , Pt, ),  
2012 .,  
, .  
, , ,  
, , ,  
, , ,  
, , ,  
, .
1. . . - /
  2. . . // . - 2007. - 1-2 (13). - . 1-6.
  3. . . // . - 2009. - 2 (15). - . 1-8.
  4. : . . / . . // . - 2008. - 1 (43). - . 251-256.
  5. . . // . - 2010. - . 1 (8), 1. - . 9-28.
  6. . - 2008. - 24. - . 101-105.
  7. . . // . - 2012. - 9. - . 374-382.
  8. . . // . - 2009. - 2 (15). - . 43-49.
- . - . - 2013. - 614-615. - . 58-65.

9. . . . : /  
 . . . , . . . . – : - , 2009. – 155 .
10. . . . - / . . . ,  
 . . . // . . . . – 2013. – 4 (13). – . 13–17.
11. : [ . –  
 : <http://www.menr.gov.ua>.
12. . . . - ,  
 / . . . , . . . //  
 . – 2014 . – 2 (10). – . 714–718.
13. . . . -  
 / . . . . – . : WWF  
 , 2012. – 284 .
14. . . . -  
 / . . . // . . . .  
 . – 2006. – 16.8. – . 172–182.
15. MapInfo Professional User Guide. – Stamford : Pitney Bowes MapInfo Corporation,  
 2007. – 568 .

: 18.08.2014  
11.09.2014  
15.10.2014

### COMPREHENSIVE ANALYSIS OF ADVANTAGES AND DISADVANTAGES OF ESTIMATION METHODS OF LAND CONSERVATION (USING GIS)

**Andriy Volkov, Oleg Popik**

*Odesa State Environmental University,  
Lvivska Str., 15, UA – 65016, Odesa, Ukraine*

The research includes generalization and compilation of the information which concerns spatial distribution of Ukraine conservation areas. The vital problems concerned to ineffective usage of conservation areas were discussed.

The existing criteria and indexes which are used for assessing of natural conservation areas were discussed. The main advantages and disadvantages of the indexes were analyzed. The database and the thematic maps of conservation areas spatial distribution were designed utilizing geoinformational application MapInfo. Ukraine's regions were compared by different conservation area indexes. Comprehended approach to estimation of conservation areas was implemented based on cluster analysis. Complex zoning of Ukraine based on spatial distribution of conservation areas was offered.

*Key words:* conservation area indexes, geographic informational systems, cluster analysis.