

= MissingNo . =

MissingNo . (Japanese : ????? , Hepburn : Ketsuban) , or MissingNO , is an unofficial Pokémon species found in the video games Pokémon Red and Blue . Standing for " Missing Number " , MissingNo. are used as error handlers by game developer Game Freak ; they appear when the game attempts to access data for a nonexistent Pokémon species . Due to the programming of three in @-@ game events , players can encounter MissingNo. via a glitch . The species was first documented by Nintendo in the May 1999 issue of Nintendo Power .

Encountering MissingNo. causes graphical errors and the mass replication of the sixth item in the player 's item menu ; the latter effect resulted in the glitch 's coverage by strategy guides and game magazines . IGN has noted MissingNo . ' s appearance in Pokémon Red and Blue as one of the most famous video game glitches . Fans of the series have attempted to rationalize MissingNo. as part of the games ' canon , and sociologists have studied its impact on players .

= = History = =

Developed by Game Freak and published by Nintendo , the Pokémon series began in Japan in 1996 . The player assumes the role of a Pokémon Trainer whose goal is to capture and train creatures called Pokémon . Players use the creatures ' special abilities to combat other Pokémon , and certain abilities also grant new ways to navigate the game 's world , such as instantaneous travel between two areas .

Nintendo first documented the events that cause MissingNo. to appear in the May 1999 issue of Nintendo Power , with a warning that " any contact with it (even if you don 't catch it) could easily erase your game file or disrupt your graphics " . The glitch is the result of a succession of events : first , players watch an in @-@ game tutorial for Pokémon capture . The player then uses a Pokémon with the Fly ability to reach the game 's Cinnabar Island location , and then uses a Pokémon with the Surf ability to travel up and down the eastern " shore " of the island until a MissingNo. appears .

= = Characteristics = =

Encountering a MissingNo . Pokémon is the result of three computing events . The first is the game 's random battle encounter system ; each area assigns values to Pokémon in a data buffer , which the game accesses for the player 's encounters with wild Pokémon . However , no values are assigned to this buffer on the east coast of the Cinnabar and Seafoam Island locations ? the information from the previously visited area is used instead . The second factor is the in @-@ game tutorial , which temporarily stores the player 's name in the data buffer . This causes the game to access the hexadecimal values of the player 's name for Pokémon encounters at Cinnabar and Seafoam Island . The third factor is the game 's error handling system ; if the game selects a value from the data buffer that is not an existing Pokémon , a subroutine is triggered that causes the appearance of a Pokémon named MissingNo . , short for " Missing Number " .

As with any wild Pokémon , players may flee from , fight or capture MissingNo . After an encounter with MissingNo . , the quantity of the sixth item in the player 's item menu is usually increased by a large amount and the game 's Hall of Fame Pokémon gallery becomes permanently glitched . Temporary graphical glitches may also occur , which can be removed by viewing the statistics page for another Pokémon or resetting the console . A captured MissingNo. is a fully functional Pokémon , and appears in the game 's Pokémon index as number 000 . All MissingNo. possess consistent abilities , type , statistics and sounds . The Pokémon commonly appears as a scrambled " d " -shape , but certain encounter values cause it to appear as one of three sprites not used by other Pokémon .

= = Reaction and reception = =

While it only appeared in a few games in the series , MissingNo. has had a significant impact . Calling it a " programming quirk " , Nintendo warned against encountering it , claiming players could possibly have to restart the game from the beginning to remove the graphical glitches . Despite Nintendo 's warning , information on how to encounter MissingNo. was printed in several magazines and player 's guides due to its perceived positive effect . Certain players attempted to sell " tips " on capturing MissingNo. for up to \$ 200 . Despite it not being an intentional part of the game , in 2009 , IGN included MissingNo. in its list of the top video game Easter eggs , citing its usefulness in replicating the game 's rarer items . IGN stated in a related article , " It really says something about Pokémon fans that they took what is a potentially game @-@ ruining glitch and used it as a shortcut to level up their Pokémon , " and later called it an " unforgettable " glitch that helped push the original games to " gaming super stardom " .

Players ' reactions to MissingNo. have been the subject of sociological studies . Sociologist William Sims Bainbridge stated that Game Freak created " one of the most popular glitches ever in game history " , and cited its creative usage by players . In the book *Pikachu 's Global Adventure : The Rise and Fall of Pokémon* , professor of education Julian Sefton @-@ Green noticed that in his study of his son 's reaction to MissingNo . ' s usage as a " cheat " , the child 's outlook towards the game was altered drastically , and added that the presence of such elements as a result broke the illusion of the game as an enclosed world and reminded them that " at heart , it is a computer program " . The book *Playing with Videogames* contains an in @-@ depth study of MissingNo . , which details players ' curiosity when encountering the Pokémon . It describes their tendency to compare notes on its appearance , and to give assessment and critique to each other 's findings . The book states that , in their attempts to interpret MissingNo. as part of the series 's narrative through fan art and fiction , Pokémon communities celebrated the game 's imperfections and tried to imprint themselves on its canon . The author described these circumstances as unique to MissingNo . , and called its popularity an unusual case .